THE PROMISE OF EVIDENCE-BASED POLICYMAKING

Report of the Commission on Evidence-Based Policymaking
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September 2017

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Appendix E: Report on the CEP Survey of Federal Offices

Beginning in January 2017, the Commission on Evidence-Based Policymaking (CEP) extended invitations to over 200 Federal offices to complete a survey entitled, "Building Evidence from Data: Capacity and Needs in the Federal Government." This report describes the purpose and development of the survey, methods used in data collection, and observed response patterns. It then presents highlighted findings based on a limited analysis of selected survey items.

Purpose and Development of the CEP Survey of Federal Offices

The CEP Survey of Federal Offices provided an opportunity for eligible offices to share information with the Commission about how they collect, use, and make data available for evidence-building. The survey also collected detailed information about the barriers Federal offices face in accessing data for evidence building. The survey was designed to be applicable to individual Federal offices involved in evidence building and use; therefore multiple relevant offices within each Federal department received an invitation to complete the survey. The Commission sought detailed information directly from individual offices so it could learn about variations in capacity and the prevalence of key barriers within Federal departments and government wide.

List of Eligible Offices

The Commission developed the initial list of offices eligible to participate in the CEP Survey of Federal Offices in early November 2016. Eligible offices were defined as those Federal units generating data, building evidence, and using evidence for policymaking. The initial list was developed from Federal budget accounts for Chief Financial Officers (CFO) Act Agencies at the bureau level.

Additional offices were added, including at the sub-bureau level,[1] to ensure coverage of known Federal offices involved in evidence building and use. The added offices included units identified in *Statistical Programs of the United States Government: Fiscal Year 2016*[2] and offices that are members of the Interagency Council on Evaluation Policy. The list excluded offices that primarily provide operational support or administrative functions, such as Offices of the General Counsel and procurement offices.

During data collection, discussions with individual offices and department officials led to several list adjustments. Some Federal offices were added to the list to ensure complete coverage. For example, the Office of Advocacy in the U.S. Small Business Administration was added and the National Center for Special Education Research in the U.S. Department of Education was made an eligible office separate from the National Center for Education Research. The National Institutes of Health elected to submit a single coordinated response for its Institutes and Centers; the list was adjusted accordingly.

The final list of eligible offices consisted of 209 offices from 20 agencies with at least two operating units, plus an additional 11 single bureau agencies and commissions (e.g., Corporation for National and Community Service, Institute of Museum and Library Services). See Attachment A for the final list of eligible and responding offices.

Each office on the list was coded by type of office (Principal Statistical Agency, Evaluation Office, or Other) and by priority for nonresponse follow-up (High, Medium, or Low). Type of office designation was derived from a variety of sources. Principal Statistical Agencies were identified from

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1. Budget account data obtained from the FY 2017 President's Budget provided by the Office of Management and Budget.

2. Office of Management and Budget, Statistical Programs of the United States Government (Washington: D.C.: 2017); *https:// obamawhitehouse.archives.gov/sites/default/files/omb/assets/ information_and_regulatory_affairs/statistical-programs-2017.pdf* (accessed August 8, 2017).

Statistical Programs of the United States Government: Fiscal Year 2016. Evaluation Offices were identified through the Interagency Council on Evaluation Policy and through Commission expertise. "Other Offices" comprised the remainder and included a variety of statistical programs, program agencies, and policy offices.

The nonresponse priority designation was based on OMB's annual report of statistical activities and Commissioner and CEP staff expertise.[3] Offices designated as high priority for nonresponse follow-up included statistical and evaluation offices plus other offices that are either large or play a significant role in Federal evidence building. Offices designated as low priority for nonresponse follow-up included small offices and offices with a limited role in Federal evidence building. Medium offices comprised the remainder. The priority designation was used during data collection to determine the intensity of nonresponse follow-up efforts.

Questionnaire Development and Testing

CEP staff developed the survey content based on Commissioner input about key concepts they wished to measure. The draft survey was programmed into the MAX Survey platform managed by the Office of Management and Budget (OMB) during November and December of 2016. Commissioners reviewed the survey in early December of 2016 and OMB officials offered suggestions which were incorporated into a testing version. In late December of 2016, staff sent the testing version of the survey to nine Federal colleagues with relevant expertise and availability during the testing timeframe. All of the survey testers were from offices eligible for the survey but none of the testers was their office's designated respondent for the actual survey data collection.

Survey testers provided substantial comments on the survey's content, flow, and item wording.

CEP staff debriefed by telephone with most of the testers after they had filled out the survey and provided written comments. One tester agreed to fill out the survey and concurrently "think aloud" while CEP staff listened, took notes, and asked questions about item clarity and construction. All of this input helped to ensure that the intention and wording of the survey items would be clear to respondents. Final revisions based on testing were made in early January 2017.

See Attachment B for a summary of survey items and Attachment C for detailed survey content including skip patterns. The survey closes with a series of open-ended questions about barriers to evidence building and examples of evidence-building activities. Responses to the open-ended questions are shown in Attachment D.

Data Collection Procedures

CEP staff identified a specific senior Federal official—generally a Director, Deputy Director, Chief of Staff, or Chief of Policy—as the primary contact and respondent for each eligible office. Initial invitations to complete the survey were sent to respondents by email from the MAX Survey platform on Monday, January 9, 2017. Reminder emails were sent to all nonrespondents on each of the three following Tuesdays in January. On February 1, 2017, the CEP Executive Director sent a follow-up email to all nonrespondents directly from her CEP email account rather than through the MAX Survey system. The email from her CEP account resulted in a large number of undeliverable email returns that had not previously been detected by the MAX system. The inaccurate email addresses generally fell into two categories: emails for officials who had left Federal service during the Presidential transition in late January 2017 and emails for incumbent Federal officials that contained errors. CEP staff investigated all of the undeliverable emails, found replacements for officials who had left, and corrected email address errors. New invitations were sent to replacement respondents and to corrected email addresses in early February. Beginning on February 7th, CEP staff began intensive email and telephone nonresponse follow-up of eligible offices designated on the final list of eligible offices as "high priority;"

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3. This determination was also informed by the Office of Management and Budget's (OMB) paper, "Overview of Federal Evidence-Building Efforts," White Paper for the Commission on Evidence-Based Policymaking (Washington, D.C.: OMB, Executive Office of the President, 2016); *https://obamawhitehouse.archives. gov/sites/default/files/omb/mgmt-gpra/overview_of_federal_evidence_building_efforts.pdf* (accessed August 8, 2017).

Table A.—Survey Response Rates by Type of Office and Priority Category

	Number of Eligible Offices	Number Responding	Response Rate
Type of Office			
Principal Statistical Agency	13	13	100%
Evaluation Office	12	10	83%
Other	184	67	36%
Priority Category			
High	57	45	79%
Medium	63	18	29%
Low	89	27	30%
Total	209	90	43%

follow-up efforts continued until the close of data collection. There was no additional follow-up conducted for "medium priority" and "low priority" offices. Data collection remained open with late responses accepted until the end of April 2017.

Response Rates

At the close of data collection, 90 of the 209 eligible offices had submitted survey responses for an overall response rate of 43 percent as shown in Table A. Response rates varied considerably by type of office and priority designation. All 13 of the Principal Statistical Agencies, 83 percent of Evaluation Offices, and 79 percent of the offices designated as "high" priority responded to the survey. In contrast, 36 percent of the Other offices and 29 and 30 percent of "medium" and "low" offices, respectively, submitted responses.

Table B shows the number of eligible and responding offices for each agency. An agency had to have at least two eligible offices to be listed separately in this table. Single office agencies and commissions are aggregated in Table B. Agency-level response rates ranged from 100 percent for the National Science Foundation and the U.S. Small Business Administration to 0 percent for the U.S. Agency for International Development.

Data Analysis

CEP staff downloaded a .csv file from the Max Survey platform containing all of the survey responses for responding offices. The analysis file excluded responses to the open-ended questions at the end of the survey. The .csv file was converted to an Excel file for analysis with pivot tables. CEP staff edited the data in creating the final analysis file, including concatenating the names of responding Federal offices into one variable and recoding "yes" to 1 and "no" to 0 for certain variables used in the limited analysis presented in this Appendix. The final survey analysis file used to create the tables presented in this Appendix is available as an Excel spreadsheet at *www.cep.gov/ library/Final-CEP-Survey-Analysis-File.xlsx*.

The results presented in Tables 1 through 4 represent only a small portion of the potential for analysis from this survey. For example, the survey goes into considerable detail about the various data services that agencies provide (e.g., do you have staff dedicated to conducting disclosure review?) and the specifics of data linkages (e.g., What linkage keys do you use? How do you protect them?). The final survey analysis file may be a resource for those seeking more information about capacity for and barriers to evidence generation and use among Federal agencies.

Table B.—Survey Response Rates by Agency

Agency	Number of Eligible Offices	Number Responding	Response Rate
U.S. Department of Agriculture	19	4	21%
U.S. Department of Commerce	19	5	26%
U.S. Department of Defense	4	2	50%
U.S. Department of Education	13	6	46%
U.S. Department of Energy	10	4	40%
U.S. Department of Health and Human Services	39	24	62%
U.S. Department of Homeland Security	9	1	11%
U. S. Department of Housing and Urban Development	6	1	17%
U.S. Department of Justice	12	5	42%
U.S. Department of Labor	8	4	50%
U.S. Department of State	3	1	33%
U.S. Department of the Interior	10	5	50%
U.S. Department of the Treasury	8	4	50%
U.S. Department of Transportation	11	2	18%
U.S. Department of Veterans Affairs	5	3	60%
U.S. Environmental Protection Agency	8	2	25%
National Science Foundation	3	3	100%
U.S. Small Business Administration	2	2	100%
U.S. Social Security Administration	7	5	71%
U.S. Agency for International Development	2	0	0%
Single Bureaus and Commissions	11	7	64%
Total	209	90	43%

Highlights of Survey Results

Tables 1 and 2 are based on the responses provided by the 79 responding Federal offices that reported that they collect or analyze data to produce statistics about the economy, society, or environment, to evaluate a program to understand its implementation or impact on participants; to support research on a population, group of entities, policy, or program, or to conduct analysis of existing policies or programs to assist decision making or who spend 1 to 100 percent of their total annual budget for these statistics, evaluation, research, or policy analysis (SERA) purposes.

Table 1 summarizes barriers to using data for evidence building, by showing the number of Federal offices that reported that each of nine factors is a "major" or "moderate" barrier to its ability to use data for statistical, evaluation, research, or policy analysis purposes.

• Over half of responding Federal offices reported that "lack of ability to hire appropriate staff", "inadequate funding", and "legal limitations" were major or moderate barriers. Ten out of 13 Principal Statistical Agencies and 8 out 10 Evaluation Offices cited "legal limitations" as a barrier. About three-quarters of offices that spend 91 to 100 percent of their budget for SERA purposes reported that "legal limitations" was a major or moderate barrier.

Table 2 summarizes the most prevalent barriers to accessing specific kinds of data, showing the number of Federal offices reporting that they considered using 13 different kinds of data for statistical, evaluation, research, or policy analysis purposes, but ultimately were not able to use the data because it was too hard to get access to the specific dataset they needed. For each kind of data, the table then shows how many offices reported certain barriers to using those data and whether those barriers occurred in their own office, in their own agency, in another agency, or at the state level. State level is only applicable to certain kinds of data.

- Of the 79 offices that collect or analyze data for SERA purposes or spend a portion of their budget for SERA purposes, 22 found Federal tax data hard to access. Twelve offices found criminal justice data and Medicare/Medicaid claims and utilization data hard to access and 11 found education data (Federal or state), Federal social security data, or state unemployment insurance wage record data hard to access.

- Among the 22 offices that found Federal tax data hard to access, 13 reported that regulations or policies in another agency that make it difficult to link data was a barrier to access and 11 reported that statutes prohibiting data sharing in another agency was a barrier to access. Seven offices indicated that lack of staff, policies, and procedures to establish data sharing agreements in their own offices was a barrier to accessing Federal tax data.

Tables 3 and 4 are based on the 70 responding Federal offices reporting that they collect data about individual units (e.g., people, businesses, nonprofit organizations, schools) either directly or through an intermediary source (e.g., state or local governments, private entities) routinely (as a regular part of their programs or processes), or occasionally (not as a regular part of their programs or processes).

Table 3 shows the number and percent of Federal offices that reported that any other agency, or its representatives, access their confidential data for SERA purposes and the number and percent of agencies that reported that researchers outside the Federal government access their confidential data.

- Three-quarters of the Principal Statistical Agencies and 5 out of 8 Evaluation offices report that other agencies access their confidential data for SERA purposes. Offices with higher percentages of their budget allocated for SERA purposes are more likely to report that other agencies access their data.

- All of the Principal Statistical Agencies and 5 out of 8 Evaluation Offices report that outside researchers access their confidential data, while only 22% (13 out of 60) of Other offices report that outside researchers access their confidential data.

Table 4 shows the number and percent of Federal offices that typically create metadata or technical documentation for the data the office produces, including variable definitions, units of measurement, and response ranges; changes to definitions, scope, or data collection processes over time; and imputation procedures or other edits to the data.

- Overall, two-thirds of responding Federal offices that collect data routinely or occasionally report that they produce metadata that includes variable definitions, units of measurement, and response ranges, compared to 61 percent that produce metadata that includes changes to definitions, scope, or data definitions over time and 53 percent that produce metadata that include imputation procedures or other edits to the data.

- A higher proportion of Principal Statistical Agencies and Evaluation Offices than Other offices produced metadata with each of the three elements.

Table 1. Federal offices that report each factor is a "major" or "moderate" barriers to using data for evidence building, by selected office characteristics: 2017

		Factors								
	Number of Federal offices	Lack of ability to hire appropriate staff	Lack of ability to execute and manage contracts	Inadequate funding	Legal limitations	Information Technology (IT) systems or requirments	Privacy and data security requirements	Political processes (e.g. transitions in agency/office leadership, congressional oversight)	Information collection requirements (e.g. PRA and IRB)	Other
Total	**79***	**43**	**13**	**48**	**41**	**35**	**37**	**21**	**36**	**7**
Type of Office										
Principal Statistical Agency	13	8	4	7	10	5	5	6	2	1
Evaluation office	10	5	1	4	8	5	9	2	6	1
Other	56	30	8	37	23	25	23	13	28	5
Percent of Budget for SERA Purposes										
0 percent	1	0	0	1	0	0	0	0	0	0
1 to 10 percent	27	14	4	13	7	13	12	4	13	3
11 to 50 percent	11	8	2	9	6	6	3	5	6	1
51 to 90 percent	8	3	1	2	4	3	4	2	2	1
91 to 100 percent	25	14	5	17	19	10	15	7	11	1
No Response	7	4	1	6	5	3	3	3	4	1

*The number of responding Federal offices varies across factors due to item nonresponse. To calculate percentages, use a base of 79 responding offices for each factor except for "lack of ability to execute and hire contracts" and "privacy and data security requirements" (77), "legal limitations" (75), and "political processes" (71).

NOTE: Table based on the 79 responding Federal offices that reported on the survey that they collect or analyze data for statistical, evaluation, research, or policy analysis (SERA) purposes or spend a portion of their budget for SERA purposes."Type of Office" was determined in consultation with OMB when developing the list of eligible offices. "Percent of Budget for SERA Purposes" is the response to an item on the survey.

SOURCE: "Building Evidence from Data: Capacity and Needs in the Federal Government," U.S. Commission on Evidence-Based Policymaking Survey of Federal Offices, 2017.

Table 2. Kinds of data Federal offices found hard to access, by barriers in their own office, another office, another agency, or in states: 2017

| | Number of offices reporting data are hard to access | Barriers | | | | | | | | | | | | | | | | | | | | | | | |
| | | Lack of staff, policies, and procedures to establish data sharing agreements | | | | Statutes prohibiting data sharing | | | | Regulations or policies that make it difficult to link data | | | | Lack of capacity in Information Technology systems | | | | Lack of staff or contractors with specific technical expertise needed to link data | | | | Concerns about keeping the linked data secure and confidential | | | |
		Own Office	Other Office	Other Agency	State	Own Office	Other Office	Other Agency	State	Own Office	Other Office	Other Agency	State	Own Office	Other Office	Other Agency	State	Own Office	Other Office	Other Agency	State	Own Office	Other Office	Other Agency	State
Total	79	23	9	9	7	3	7	40	9	5	11	55	14	10	3	3	2	16	5	6	2	5	12	10	2
Kind of Data																									
Criminal justice data	12	4	3	2	1	1	2	3	1	2	0	5	3	1	1	1	2	5	1	2	2	0	1	2	0
Decennial Census/ American Community Survey (ACS)	7	0	1	1	NA	0	0	3	NA	0	0	4	NA	0	0	0	NA	0	0	0	NA	0	0	0	NA
Education data (Federal)	4	0	0	1	NA	0	0	2	NA	0	0	2	NA	0	0	0	NA	0	0	0	NA	0	0	1	NA
Education data (state or private)	11	0	0	0	0	0	1	3	3	0	1	4	2	0	0	0	0	0	0	0	0	0	0	0	2
Federal data on business program participation	6	0	0	0	NA	0	1	1	NA	0	1	2	NA	2	0	0	NA	2	0	1	NA	0	0	0	NA
Federal establishment survey data (e.g., economic and agricultural censuses)	8	1	0	0	NA	0	0	4	NA	0	0	3	NA	0	0	0	NA	0	0	0	NA	0	0	0	NA
Federal tax data	22	7	1	1	NA	2	1	11	NA	1	2	13	NA	3	1	1	NA	2	1	1	NA	2	3	3	NA
Federal social security data	11	3	1	1	NA	0	0	3	NA	0	1	3	NA	1	0	0	NA	2	1	2	NA	0	1	1	NA
Human services program data (e.g., SNAP and TANF)	9	2	0	0	0	0	1	2	1	0	1	5	2	1	0	0	0	1	0	0	0	0	1	1	0
Medicaid/Medicare claims and utilization data	12	2	1	0	1	0	1	2	0	1	2	3	1	0	0	0	0	2	1	0	0	1	2	0	0
Military service and veteran benefits records	7	1	1	2	NA	0	0	0	NA	1	1	3	NA	1	1	1	NA	1	1	0	NA	0	0	1	NA
State unemployment insurance wage record data	11	1	1	1	3	0	0	4	3	0	0	4	4	1	0	0	0	0	0	0	0	1	1	0	0

NOTE: Table based on the 79 responding Federal offices that reported on the survey that they collect or analyze data for statistical, evaluation, research, or policy analysis (SERA) purposes or spend a portion of their budget for SERA purposes. Responding offices could report experiencing the same barrier from multiple sources. For example, some of the the 23 offices reporting that "lack of staff, policies, and procedures to establish data sharing agreements" in their own office was a barrier may also have reported that barrier as occurring in another office, another agency, or at the state level.

NA: Barriers at state level not applicable for this kind of data.

SOURCE: "Building Evidence from Data: Capacity and Needs in the Federal Government," U.S. Commission on Evidence-Based Policymaking Survey of Federal Offices, 2017.

Table 3. Federal offices that provide other agencies and researchers access to the data they collect, by selected office characteristics: 2017

	Number of Federal offices	Other Federal agencies access data		Researchers external to the Federal government access data	
		Number	Percent	Number	Percent
Total	**70**	**34**	**48.6**	**32**	**45.7**
Type of Office					
Principal Statistical Agency	13	10	76.9	13	100.0
Evaluation office	8	5	62.5	5	62.5
Other	49	19	38.8	14	28.6
Percent of Budget for SERA Purposes					
0 percent	3	1	33.3	1	33.3
1 to 10 percent	24	9	37.5	4	16.7
11 to 50 percent	10	4	40.0	3	30.0
51 to 90 percent	6	3	50.0	6	100.0
91 to 100 percent	19	12	63.2	14	73.7
No Response	8	5	62.5	4	50.0

NOTE: Table based on the 70 responding Federal offices that collect data about individual units either directly or through an intermediary. "Type of Office" was determined in consultation with OMB in developing the list of eligible offices. "Percent of Budget for SERA Purposes" is the response to an item on the survey. SERA stands for statistics, evaluation, research or policy analysis.

SOURCE: "Building Evidence from Data: Capacity and Needs in the Federal Government," U.S. Commission on Evidence-Based Policymaking Survey of Federal Offices, 2017.

Table 4. Federal offices that typically create metadata or documentation for data they collect that includes various elements, by selected office characteristics: 2017

	Number of Federal offices	Elements					
		Variable definitions, units of measurement, and response ranges		Changes to definitions, scope, or data collection processes over time		Imputation procedures or other edits to the data	
		Number	Percent	Number	Percent	Number	Percent
Total	**70**	**47**	**67.1**	**43**	**61.4**	**37**	**52.9**
Type of Office							
Principal Statistical Agency	13	12	92.3	11	84.6	11	84.6
Evaluation office	8	8	100.0	5	62.5	7	87.5
Other	49	28	57.1	27	55.1	19	38.8
Percent of Budget for SERA Purposes							
0 percent	3	1	33.3	2	66.7	0	0.0
1 to 10 percent	24	14	58.3	12	50.0	9	37.5
11 to 50 percent	10	6	60.0	6	60.0	5	50.0
51 to 90 percent	6	5	83.3	4	66.7	4	66.7
91 to 100 percent	19	17	89.5	15	78.9	15	78.9
No Response	8	5	62.5	4	50.0	4	50.0

NOTE: Table based on the 70 responding Federal offices that collect data about individual units either directly or through an intermediary. "Type of Office" was determined in consultation with OMB in developing the list of eligible offices. "Percent of Budget for SERA Purposes" is the response to an item on the survey. SERA stands for statistics, evaluation, research or policy analysis.

SOURCE: "Building Evidence from Data: Capacity and Needs in the Federal Government," U.S. Commission on Evidence-Based Policymaking Survey of Federal Offices, 2017.

Attachment A. List of Federal Offices Eligible for the CEP Survey of Federal Offices, by Agency, 2017

NOTE: Responding offices are in italics.

Agency	Office
Broadcasting Board of Governors	Broadcasting Board of Governors
U.S. Consumer Product Safety Commission	Consumer Product Safety Commission
Corporation for National and Community Service	*Corporation for National and Community Service*
U.S. Department of Agriculture	Agricultural Marketing Service
	Agricultural Research Service
	Animal and Plant Health Inspection Service
	Chief Economist
	Economic Research Service
	Farm Service Agency
	Food and Nutrition Service
	Food Safety and Inspection Service
	Foreign Agricultural Service
	Forest Service
	Grain Inspection, Packers and Stockyards Administration
	National Agricultural Statistics Service
	National Institute of Food and Agriculture
	Natural Resources Conservation Service
	Office of Civil Rights
	Risk Management Agency
	Rural Development - Rural Housing Service
	Rural Development - Rural Utilities Service
	World Agricultural Outlook Board
U.S. Department of Commerce	*Bureau of Industry and Security*
	Bureau of the Census
	Bureau of Economic Analysis
	Economic Development Administration
	Economics and Statistics Administration (ex BEA and Census)
	International Trade Administration
	Minority Business Development Agency
	National Institute of Standards and Technology

Agency	Office
U.S. Department of Commerce *(continued)*	*National Oceanic and Atmospheric Administration — National Environmental Satellite Data and Information Service*
	National Oceanic and Atmospheric Administration — National Marine Fisheries Service
	National Oceanic and Atmospheric Administration — National Ocean Service
	National Oceanic and Atmospheric Administration — National Weather Service
	National Oceanic and Atmospheric Administration — Office of Marine and Aviation Operations
	National Oceanic and Atmospheric Administration — Office of Oceanic and Atmospheric Research
	National Technical Information Service
	National Telecommunications and Information Administration
	Office of Performance Evaluation and Risk Management
	U.S. Patent and Trademark Office
	United States Travel and Tourism Administration
U.S. Department of Defense	*Army Corps of Engineers*
	Defense Health Agency
	Defense Manpower Data Center
	Office of the Assistant Secretary of Defense for Research and Engineering
U.S. Department of Education	*National Center for Education Evaluation and Regional Assistance*
	National Center for Education Research
	National Center for Education Statistics
	National Center for Special Education Research
	Office for Civil Rights
	Office of Career, Technical, and Adult Education
	Office of Elementary and Secondary Education
	Office of English Language Acquisition
	Office of Federal Student Aid
	Office of Innovation and Improvement
	Office of Planning, Evaluation, and Policy Development
	Office of Postsecondary Education
	Office of Special Education and Rehabilitative Services
U.S. Department of Energy	Advanced Research Projects Agency for Energy
	Chief Information Officer
	Energy Information Administration
	National Nuclear Security Administration
	Office of Electricity Delivery and Energy Reliability
	Office of Energy Efficiency and Renewable Energy

Agency	Office
U.S. Department of Energy *(continued)*	*Office of Environment, Health, Safety and Security*
	Office of Fossil Energy
	Office of Nuclear Energy
	Office of Science
U.S. Department of Health and Human Services	*Administration for Children and Families - Administration on Children, Youth, and Families*
	Administration for Children and Families - Office of Child Care
	Administration for Children and Families - Office of Child Support Enforcement
	Administration for Children and Families - Office of Community Services
	Administration for Children and Families - Office of Family Assistance
	Administration for Children and Families - Office of Head Start
	Administration for Children and Families - Office of Planning, Research, and Evaluation
	Administration for Children and Families - Office of Refugee Resettlement
	Administration for Community Living
	Agency for Healthcare Research and Quality
	Centers for Disease Control and Prevention
	Centers for Disease Control and Prevention - Center for Global Health
	Centers for Disease Control and Prevention - National Center for Chronic Disease Prevention and Health Promotion
	Centers for Disease Control and Prevention - National Center for Emerging Zoonotic and Infectious Diseases
	Centers for Disease Control and Prevention - National Center for Environmental Health
	Centers for Disease Control and Prevention - National Center for HIV/ AIDS, Viral Hepatitis, Sexually Transmitted Disease, and Tuberculosis Prevention
	Centers for Disease Control and Prevention - National Center for Immunization and Respiratory Diseases
	Centers for Disease Control and Prevention - National Center for Injury Prevention and Control
	Centers for Disease Control and Prevention - National Center on Birth Defects and Developmental Disabilities
	Centers for Disease Control and Prevention - National Institute for Occupational Safety and Health
	Centers for Disease Control and Prevention - National Center for Health Statistics
	Centers for Disease Control and Prevention - Office of the Associate Director for Policy
	Centers for Disease Control and Prevention - Office of the Associate Director for Science

Agency	Office
U.S. Department of Health and Human Services *(continued)*	Centers for Disease Control and Prevention - Program Performance and Evaluation Office, Office of the Director
	Centers for Medicare and Medicaid Services - Center for Medicare and Medicaid Innovation
	Centers for Medicare and Medicaid Services - Office of Enterprise Data and Analytics
	Centers for Medicare and Medicaid Services - Office of the Director
	Food and Drug Administration
	Food and Drug Administration - Center for Drug Evaluation and Research
	Health Resources and Services Administration
	Indian Health Service
	National Institutes of Health - NIH Office of Science Policy
	Office of Adolescent Health
	Office of Minority Health
	Office of Population Affairs
	Office of the Assistant Secretary for Planning and Evaluation
	Office of the National Coordinator
	Substance Abuse and Mental Health Services Administration - Center for Behavioral Health Statistics and Quality
	Substance Abuse and Mental Health Services Administration - Office of Policy, Planning, and Innovation
U.S. Department of Homeland Security	Citizenship and Immigration Services
	Federal Emergency Management Agency
	National Protection and Programs Directorate
	Office of Policy
	Office of Policy - Office of Immigration Statistics
	Science and Technology Directorate
	Transportation Security Administration
	U.S. Customs and Border Protection
	U.S. Immigration and Customs Enforcement
U.S. Department of Housing and Urban Development	Asst. Sec. for Community Planning and Development
	Asst. Sec. for Housing Programs
	Asst. Sec. for Public and Indian Housing Programs
	Fair Housing and Equal Opportunity
	Office of Lead Hazard Control and Healthy Homes
	Policy Development and Research
U.S. Department of Justice	Bureau of Alcohol, Tobacco, Firearms, and Explosives
	Bureau of Prisons
	Drug Enforcement Administration
	Federal Bureau of Investigation - Criminal Justice Information Service

Agency	Office
U.S. Department of Justice *(continued)*	Federal Bureau of Investigation - Office of the director
	Office of Community Oriented Policing Services
	Office of Justice Programs - Bureau of Justice Assistance
	Office of Justice Programs - Bureau of Justice Statistics
	Office of Justice Programs - National Institute of Justice
	Office of Justice Programs - Office of Juvenile Justice and Delinquency Prevention
	Office of Justice Programs - Office of Victims of Crime
	Office of Justice Programs - Office of Violence Against Women
U.S. Department of Labor	*Bureau of Labor Statistics*
	Employee Benefits Security Administration
	Employment and Training Administration
	Mine Safety and Health Administration
	Occupational Safety and Health Administration
	Office of the Assistant Secretary for Policy - Chief Evaluation Office
	Office of Workers' Compensation Programs
	Wage and Hour Division
U.S. Department of State	*Evaluation and Aid Effectiveness Branch, Office of US Foreign Assistance Resources*
	Office of Policy and Planning
	Office of the U.S. Global AIDS Coordinator
U.S. Department of the Interior	Bureau of Indian Affairs and Bureau of Indian Education
	Bureau of Land Management
	Bureau of Ocean Energy Management
	Bureau of Reclamation
	Bureau of Safety and Environmental Enforcement
	National Park Service
	Office of Natural Resources Revenue
	Office of Surface Mining Reclamation and Enforcement
	United States Fish and Wildlife Service
	United States Geological Survey
U.S. Department of the Treasury	*Alcohol and Tobacco Tax and Trade Bureau*
	Bureau of Engraving and Printing
	Bureau of Fiscal Service
	Federal Financing Bank
	Financial Crimes Enforcement Network
	Internal Revenue Service - Research, Analysis, and Statistics
	Internal Revenue Service - Statistics of Income Division
	United States Mint

Agency	Office
U.S. Department of Transportation	*Bureau of Transportation Statistics*
	Federal Aviation Administration
	Federal Highway Administration
	Federal Motor Carrier Safety Administration
	Federal Railroad Administration
	Federal Transit Administration
	Maritime Administration
	National Highway Traffic Safety Administration
	Pipeline and Hazardous Materials Safety Administration
	Saint Lawrence Seaway Development Corporation
	Surface Transportation Board
U.S. Department of Veterans Affairs	National Cemetery Administration
	National Center for Veterans Analysis and Statistics
	Office of Policy and Planning
	Veterans Benefits Administration
	Veterans Health Administration
U.S. Environmental Protection Agency	Office of Air and Radiation
	Office of Chemical Safety and Pollution Prevention
	Office of Enforcement and Compliance Assurance
	Office of Environmental Information
	Office of Land and Emergency Management
	Office of Policy - National Center for Environmental Economics
	Office of Policy - Office of Strategic Environmental Management
	Office of Water
U.S. Equal Employment Opportunity Commission	*Equal Employment Opportunity Commission*
U.S. General Services Administration	*General Services Administration*
Institute of Museum and Library Services	Institute of Museum and Library Services
Millennium Challenge Corporation	*Millennium Challenge Corporation*
National Aeronautics and Space Administration	*National Aeronautics and Space Administration*
U.S. National Archives and Records Administration	*National Archives and Records Administration*

Agency	Office
National Science Foundation	*National Center for Science and Engineering Statistics*
	Office of Integrative Activities
	Office of the Director
Nuclear Regulatory Commission	*Nuclear Regulatory Commission*
U.S. Office of Personnel Management	Office of Personnel Management
U.S. Small Business Administration	*Office of Advocacy*
	Office of Performance Management
U.S. Social Security Administration	*Office of Data Exchange and Policy Publications*
	Office of Disability policy
	Office of Income Security Programs
	Office of Research, Demonstration, and Employment Support
	Office of Retirement Policy
	Office of the Actuary
	Office of Research, Evaluation, and Statistics
U.S. Agency for International Development	Office of Learning, Evaluation and Research, Bureau for Policy, Planning and Learning
	US Agency for International Development

Attachment B. Condensed Version of Survey Items from the CEP Survey of Federal Offices, 2017

Approximately what percentage of your office's total annual budget is for statistical, evaluation, research, or policy analysis purposes? 0 percent 1 to 10 percent 11 to 50 percent 51 to 90 percent 91 to 100 percent
Collecting Data Does your office, or its representatives, collect data about individual units (e.g., people, businesses, nonprofit organizations, schools) either directly or through an intermediary source (e.g., state or local governments, private entities)? Yes, routinely (as a regular part of our programs or processes) Yes, occasionally (not as a regular part of our programs or processes) No
Approximately what percentage of your office's total annual budget is for collecting data from individual units? 0 percent 1 to 10 percent 11 to 50 percent 51 to 90 percent 91 to 100 percent
For which of the following purposes does your office, or its representatives, collect data from individual units? To produce statistics about the economy, society, or environment To evaluate a program to understand its implementation or impact on participants To support research on a population, group of entities, policy, or program To conduct analysis of existing policies or programs to assist decision making To conduct or support program operations To monitor program or grant performance
Are any of the data collected by your office, or its representatives, considered confidential?
Who analyzes your office's confidential data? Staff physically present in my office Staff working in a location other than my office (including teleworking) Contractors physically present in my office Contractors working in a location other than my office Staff or contractors in another office in my agency Staff or contractors in another agency My office's grantees Researchers outside of the Federal government
Analyzing Micro-Level Data From Another Agency Does your office, or its representatives, analyze micro-level data collected by any other Federal office or agency?
Which of the following kinds of micro-level data collected by any other office or agency does your office, or its representatives, analyze?

Kinds of Data:
Criminal Justice Data
Decennial Census/American Community Survey (ACS)
Education data (Federal)
Education data (State or Private)
Federal data on business program participation
Federal establishment survey data (e.g., Economic and Agricultural Censuses)
Federal tax data
Federal social security data
Human services data (e.g. SNAP and TANF)
Medicaid/Medicare claims and utilizations data
Military service and veteran benefits records
State unemployment insurance wage record data
Vital records (birth and death) data

For which of the following purposes does your office, or its representatives, analyze micro-level data collected by any other Federal office or agency?
To produce statistics about the economy, society, or environment
To evaluate a program to understand its implementation or impact on participants
To support research on a population, group of entities, policy, or program
To conduct analysis of existing policies or programs to assist decision making
To conduct or support program operations
To monitor program or grant performance

Linking Data
Does your office, or its representatives, link the confidential data it collects with data from another agency?

Which of the following kinds of data does your office, or its representatives, link with your confidential data collected from individual units? *[Kinds of Data]*

Which of the following best describes your process for linking to *[each Kind of Data]*?
Our office, or its representatives, does the linkage.
Another office or agency, or its representatives, does the linkage.
A third party, or its representatives, does the linkage.
Other

Does your office have staff or contractors whose primary job duties involve the technical process of data linkage?

How many staff or contractors does your office have whose primary job duties involve the technical process of data linkage?
1 to 2
3 to 5
6 to 10
More than 10

Which of the following statements best describes the regularity of data linkage in your office?
All of our data linkages are for ad hoc projects.
Most of our data linkages are for ad hoc projects; a few are a part of our regular processes.
Our data linkages are about evenly split between ad hoc projects and regular processes.
Most of our data linkages are a part of our regular process; a few are ad hoc projects.
All of our data linkages are part of our regular processes.

How does your office pay for data linkage?
My office has a specific budget allocation that covers data linkage.
My office chooses to set aside a portion of the budget to help pay for data linkage.
Programs within my office that do data linkage absorb the cost in their budgets.
Other offices provide funds for data linkages.
User fees help pay for data linkage.

Which of the following does your office, or its representatives, use for data linkage? A probabilistic match of key characteristics. A linking key (personal identifier). A combination of probabilistic matching and linking keys
Which of the following keys does your office, or its representatives, use for data linkage? Social Security Number (SSN) Masked SSN Employer Identification Number (EIN) Name Address Data of Birth Biometrics (e.g. fingerprints)
How does your office, or its representatives, secure data linking keys? By restricting access to the linkage key or linkage key crosswalk. By generating a pseudo-anonymous key (e.g., hash, unique ID, etc) for linking. By removing the linkage key from the file(s) once linkage is complete.
Does your office, or its representatives, keep micro-level data that are linked for statistical, research, evaluation, or policy analysis purposes so they can be analyzed again at a later time? Yes, routinely (as a regular part of our programs or processes) Yes, occasionally (not as a regular part of our programs or processes) No
Accessing Data Does another agency, or its representatives, ever access your office's confidential data for its own statistical, evaluation, research, or policy analysis purposes?
How does another agency, or its representatives, access your office's confidential data? Staff or contractors come onsite to my office or agency to access the data. Through a Federal Statistical Research Data Center (FSRDC) Through a distributed thin client Citrix or VPN network Through a Memorandum of Understanding (MOU), license, or contract agreement Through a data archive (e.g., Interuniversity Consortium for Political and Social Research)
Approximately how many other agencies, or their representatives, access your office's confidential data each year? 1 to 2 3 to 5 6 to 10 More than 10
Which of the following statements best describes how regularly another agency, or its representatives, access your office's confidential data? Many other agencies routinely (e.g., annually, quarterly, monthly) access my office's confidential data. A few other agencies routinely (e.g., annually, quarterly, monthly) access my office's confidential data. Many other agencies occasionally (i.e. on an ad hoc basis) access my office's confidential data. A few other agencies occasionally (i.e. on an ad hoc basis) access my office's confidential data. Some agencies routinely (e.g., annually, quarterly, monthly) and some agencies occasionally (i.e. on an ad hoc basis) access my office's confidential data.
Do researchers outside of the Federal government ever access your office's confidential data?
Approximately how many outside researchers access your office's confidential data each year? 1 to 10 11 to 50 51 to 100 More than 100
How do researchers outside of the Federal government access your office's confidential data? The researcher comes onsite to my office or agency to access the data Through a Federal Statistical Research Data Center (FSRDC) Through a distributed thin client Citrix or VPN network Through a Memorandum of Understanding (MOU), license, or contract agreement Through a data archive (e.g., Interuniversity Consortium for Political and Social Research)

Does your office receive and review requests from outside researchers for access to confidential data?
How often does your office receive new requests from outside researchers for access to confidential data? Daily Weekly Monthly Yearly Sporadically
Which of the following statements best describes how regularly outside researchers access your office's confidential data? Many outside researchers routinely (e.g. annually, quarterly, monthly) access my office's confidential data. A few outside researchers routinely (e.g. annually, quarterly, monthly) access my office's confidential data. Many outside researchers occasionally (i.e. on an ad hoc basis) access my office's confidential data. A few outside researchers occasionally (i.e. on an ad hoc basis) access my office's confidential data. Some outside researchers routinely (e.g. annually, quarterly, monthly) and some outside researchers occasionally (i.e. on an ad hoc basis) access my office's confidential data.
Does your office have staff or contractors whose primary job duties involve reviewing and processing outside researcher requests for access to confidential data?
How many staff or contractors does your office have whose primary job duties involve reviewing and processing outside researcher requests for access to confidential data? 1 to 2 3 to 5 6 to 10 More than 10
Does your office have a system for tracking requests from outside researchers for access to confidential data?
Does your office have a process for reviewing output produced by outside researchers to prevent disclosure of the identities of individual units?
How often does your office receive new requests for disclosure review of outside researcher analyses? Daily Weekly Monthly Yearly Sporadically
Does your office have a process for documenting the results of disclosure review of outside researcher analyses?
Does your office have staff or contractors whose primary job duties involve disclosure review of outside researcher analyses?
How many staff or contractors does your office have whose primary job duties involve disclosure review of outside researcher analyses? 1 to 2 3 to 5 6 to 10 More than 10
Does your office, or its representatives, typically create metadata or technical documentation for the data it produces that includes the following? Variable definitions, units of measurement, and response ranges Changes to definitions, scope, or data collection processes over time Imputation procedures or other edits to the data
Managing Historical Data Does your office, or its representatives, have a process for archiving, managing, and retrieving your historical micro-level data?
Does your office have staff or contractors whose primary job duties involve archiving, managing, and retrieving your historical micro-level data?

How many staff or contractors does your office have whose primary job duties involve archiving, managing, and retrieving your historical micro-level data? 1 to 2 3 to 5 6 to 10 More than 10
Does your office, or its representatives, continue to manage or clean your historical micro-level data?
How easy or difficult is it for your office, or its representatives, to retrieve and use your historical micro-level data? very easy somewhat easy somewhat difficult very difficult
When does your office, or its representatives, destroy your historical micro-level data? We archive all historical micro-level data. We destroy historical micro-level data when they are no longer being used for the purpose for which they were collected. We destroy historical micro-level data on a schedule established by statute, regulation, or policy. We destroy historical micro-level data when they are no longer relevant for research or policy analysis. We destroy historical micro-level data when they are no longer relevant for research or policy analysis.
Using Data for Statistical, Evaluation, Research, or Policy Analysis Purposes Which of the following kinds of data has your office, or its representatives, considered using for statistical, evaluation, research, or policy analysis purposes but did not because it was too hard to get access to the specific dataset you needed? [Kinds of Data]
Which of the following factors made it hard for your office to get access to [each Kind of Data]? Lack of staff, policies, and procedures to establish data sharing agreements Statutes prohibiting data sharing Regulations or policies that make it difficult to link data Lack of capacity in information technology systems Lack of staff or contractors with specific technical expertise needed to link data Concerns about keeping the data secure and confidential
[For each Kind of Data] Was/were the [factor from the previous question]: In your office? In another office in your agency In another agency At the state or local level [only applied to appropriate Kinds of Data]
To what extent is each of the following a barrier to your office's ability to use data for statistical, evaluation, research, or policy analysis purposes? Lack of ability to hire appropriate staff Lack of ability to execute and manage contracts Inadequate funding Legal limitations Information Technology (IT) systems or requirements Privacy and data security requirements Political processes (e.g., transitions in agency/office leadership, Congressional oversight) Information collection requirements (e.g. Paperwork Reduction Act and Institutional Review Boards)

Which ONE of the following is the most critical barrier to your office's ability to use data for statistical, evaluation, research, or policy analysis purposes? Lack of ability to hire appropriate staff Lack of ability to execute and manage contracts Inadequate funding Legal limitations Information Technology (IT) systems or requirements Privacy and data security requirements Political processes (e.g., transitions in agency/office leadership, Congressional oversight) Information collection requirements (e.g. Paperwork Reduction Act and Institutional Review Boards)
If applicable, please provide additional information about this most critical barrier.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.
If applicable, please provide an example of how your office has used data to build evidence for policy making.

Attachment C. Detailed Survey Items and Skip Patterns from the CEP Survey of Federal Offices, 2017

Building Evidence from Data--Capacity and Needs in the Federal Government

There are 178 questions in this survey

U.S. Commission on Evidence-Based Policymaking Survey of Federal Offices

The U. S. Commission on Evidence-Based Policymaking, established by law in March 2016, is composed of 15 members appointed by the President and Congress. Its mission is to identify ways to strengthen the government's evidence-building efforts.

This survey of Federal offices is a critical part of the Commission's fact-finding. It is designed to help the Commission understand how Federal offices collect, analyze, and provide access to data and how their needs for evidence are addressed.

The section below defines a number of terms that recur in the survey. In many cases, these definitions are also repeated at the bottom of questions for your convenience.

Thank you for completing this survey on behalf of your Federal office.

Definitions

Confidential data: identifiable micro-level data that cannot be made public due to law, policy, or practice

Data linkage: the merging of two or more micro-level datasets originally collected for different purposes

Entity: any public, private, or nonprofit organization

Individual unit: the lowest level unit at which data are collected, such as people, households, businesses, nonprofit organizations, schools

Intermediary source: any public or private organization that collects data from individual units and sends them to a Federal office, such as state or local government agencies, postsecondary institutions, grantees, or law enforcement agencies

Micro-level data: a data file with an entry (record) for each individual unit

Primary job duties: duties performed more than 50% of full-time equivalent work hours

Statistical, evaluation, research, or policy analysis purposes: activities intended to support the production, analysis, and dissemination of information, including the creation and analysis of federal statistics; production or use of evaluation for federally-supported or -directed programs; research on a population, group of entities, policy, or program; or analysis of policies or proposals to inform decision making. These purposes do NOT include program operations (e.g., compliance monitoring, eligibility determinations, enforcement actions).

[]Which Federal agency are you responding for? *

Please choose **only one** of the following:

- Broadcasting Board of Governors
- Consumer Product Safety Commission
- Department of Agriculture
- Department of Commerce
- Department of Defense
- Department of Education
- Department of Energy
- Department of Health and Human Services
- Department of Homeland Security
- Department of Housing and Urban Development
- Department of Justice
- Department of Labor
- Department of State
- Department of the Interior
- Department of the Treasury
- Department of Transportation
- Department of Veterans Affairs
- Environmental Protection Agency
- Equal Employment Opportunity Commission
- General Services Administration
- Institute of Museum and Library Services
- National Aeronautics and Space Administration
- National Archives and Records Administration
- National Science Foundation
- Nuclear Regulatory Commission
- Office of Personnel Management
- Small Business Administration
- Social Security Administration
- US Agency for International Development
- Corporation for National and Community Service
- Millennium Challenge Corporation

[]Which office in the Department of Agriculture are you responding for? *

Only answer this question if the following conditions are met:
Answer was 'Department of Agriculture' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

- ⬤ Food and Nutrition Service
- ⬤ Farm Service Agency
- ⬤ Risk Management Agency
- ⬤ Forest Service
- ⬤ Natural Resources Conservation Service
- ⬤ Foreign Agricultural Service
- ⬤ National Institute of Food and Agriculture
- ⬤ Agricultural Research Service
- ⬤ Agricultural Marketing Service
- ⬤ Animal and Plant Health Inspection Service
- ⬤ Food Safety and Inspection Service
- ⬤ Rural Development - Rural Housing Service
- ⬤ Rural Development - Rural Utilities Service
- ⬤ National Agricultural Statistics Service
- ⬤ Economic Research Service
- ⬤ Grain Inspection, Packers and Stockyards Administration
- ⬤ Office of Civil Rights
- ⬤ World Agricultural Outlook Board
- ⬤ Chief Economist

[]Which office in the Department of Commerce are you responding for? *

Only answer this question if the following conditions are met:
Answer was 'Department of Commerce' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

○ National Oceanic and Atmospheric Administration - National Environmental Satellite Data and

Information Service

○ National Oceanic and Atmospheric Administration - National Marine Fisheries Service

○ National Oceanic and Atmospheric Administration - National Ocean Service

○ National Oceanic and Atmospheric Administration - National Weather Service

○ National Oceanic and Atmospheric Administration - Office of Marine and Aviation Operations

○ National Oceanic and Atmospheric Administration - Office of Oceanic and Atmospheric Research

○ Bureau of the Census

○ National Institute of Standards and Technology

○ National Telecommunications and Information Administration

○ International Trade Administration

○ Economic Development Administration

○ Bureau of Industry and Security

○ Economics and Statistics Administration (ex BEA and Census)

○ Minority Business Development Agency

○ National Technical Information Service

○ United States Travel and Tourism Administration

○ U.S. Patent and Trademark Office

○ Bureau of Economic Analysis

○ Office of Performance Evaluation and Risk Management

[]Which office in the Department of Defense are you responding for? *

Only answer this question if the following conditions are met:
Answer was 'Department of Defense' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

○ Office of the Assistant Secretary of Defense for Research and Engineering

○ Army Corps of Engineers

○ Defense Health Agency

○ Defense Manpower Data Center

[]Which office in the Department of Education are you responding for? *

Only answer this question if the following conditions are met:
Answer was 'Department of Education' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

- ○ Office of Federal Student Aid
- ○ Office of Elementary and Secondary Education
- ○ Office of Special Education and Rehabilitative Services
- ○ Office of Postsecondary Education
- ○ Office of Career, Technical, and Adult Education
- ○ Office of Innovation and Improvement
- ○ Office of English Language Acquisition
- ○ National Center for Education Research and National Center for Special Education Research
- ○ National Center for Education Statistics
- ○ National Center for Educational Evaluation
- ○ Office for Civil Rights
- ○ Office of Planning, Evaluation, and Policy Development

[]

Which office in the Department of Energy are you responding for?

*

Only answer this question if the following conditions are met:
Answer was 'Department of Energy' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

- ○ National Nuclear Security Administration
- ○ Office of Science
- ○ Office of Energy Efficiency and Renewable Energy
- ○ Office of Fossil Energy
- ○ Office of Nuclear Energy
- ○ Office of Electricity Delivery and Energy Reliability
- ○ Advanced Research Projects Agency for Energy
- ○ Energy Information Administration
- ○ Office of Environment, Health, Safety and Security
- ○ Chief Information Officer

[]

Which office in the Department of Health and Human Services are you responding for?

*

Only answer this question if the following conditions are met:
Answer was 'Department of Health and Human Services' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

- Centers for Medicare and Medicaid Services - Office of Enterprise Data and Analytics
- Centers for Medicare and Medicaid Services - Center for Medicare and Medicaid Innovation
- Centers for Medicare and Medicaid Services - Office of the Director
- Office of Minority Health
- Administration for Children and Families - Office of Planning, Research, and Evaluation
- Administration for Children and Families - Office of Child Support Enforcement
- Administration for Children and Families - Office of Family Assistance
- Administration for Children and Families - Office of Community Services
- Administration for Children and Families - Administration on Children, Youth, and Families
- Administration for Children and Families - Office of Refugee Resettlement
- Administration for Children and Families - Office of Child Care
- Administration for Children and Families - Office of Head Start
- National Institutes of Health - National Institute on Aging
- National Institutes of Health - National Institute on Alcohol Abuse and Alcoholism
- National Institutes of Health - National Institute of Allergy and Infectious Diseases
- National Institutes of Health - National Institute of Biomedical Imaging and Bioengineering
- National Institutes of Health - National Institute of Child Health and Human Development
- National Institutes of Health - National Institute on Deafness and Other Communication Disorders
- National Institutes of Health - National Institute of Dental and Craniofacial Research
- National Institutes of Health - National Institute of Diabetes and Digestive and Kidney Diseases
- National Institutes of Health - National Institute on Drug Abuse
- National Institutes of Health - National Institute of Environmental Health Sciences
- National Institutes of Health - National Institute of General Medical Sciences
- National Institutes of Health - National Institute of Mental Health
- National Institutes of Health - National Cancer Institute
- National Institutes of Health - National Eye Institute
- National Institutes of Health - National Heart, Lung, and Blood Institute
- National Institutes of Health - National Human Genome Research Institute

- National Institutes of Health - National Center for Complementary and Integrative Health
- National Institutes of Health - NIH Clinical Center
- National Institutes of Health - NIH Center for Scientific Review
- National Institutes of Health - Fogarty International Center
- National Institutes of Health - National Center for Advancing Translational Sciences
- National Institutes of Health - National Institute of Arthritis and Musculoskeletal and Skin Diseases
- National Institutes of Health - National Institute on Minority Health and Health Disparities
- National Institutes of Health - National Institute of Neurological Disorders and Stroke
- National Institutes of Health - National Institute of Nursing Research
- National Institutes of Health - National Library of Medicine
- National Institutes of Health - NIH Office of Behavioral Health and Social Sciences Research
- National Institutes of Health - NIH Office of Disease Prevention
- National Institutes of Health - NIH Office of Program Evaluation and Performance
- National Institutes of Health - NIH Office of Research Infrastructure Programs
- National Institutes of Health - NIH Office of Research on Women's Health
- National Institutes of Health - NIH Office of Strategic Coordination
- National Institutes of Health - NIH Division of Program Coordination, Planning, and Strategic Initiatives
- National Institutes of Health - NIH Office of AIDS Research
- National Institutes of Health - NIH Office of Communications & Public Liaison
- National Institutes of Health - NIH Office of Extramural Research
- National Institutes of Health - NIH Office of Management
- National Institutes of Health - Office of Legislative Policy and Analysis
- National Institutes of Health - NIH Office of Science Policy
- Health Resources and Services Administration
- Centers for Disease Control and Prevention
- Centers for Disease Control and Prevention - Office of the Associate Director for Science
- Centers for Disease Control and Prevention - Office of the Associate Director for Policy
- Centers for Disease Control and Prevention - Program Performance and Evaluation Office, Office of the Director
- Centers for Disease Control and Prevention - National Center on Birth Defects and Developmental Disabilities
- Centers for Disease Control and Prevention - National Center for Chronic Disease Prevention and Health Promotion
- Centers for Disease Control and Prevention - National Center for Emerging Zoonotic and Infectious Diseases

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- Centers for Disease Control and Prevention - National Center for Environmental Health
- Centers for Disease Control and Prevention - National Center for Health Statistics
- Centers for Disease Control and Prevention - National Center for HIV/AIDS, Viral Hepatitis, Sexually Transmitted Disease, and Tuberculosis Prevention
- Centers for Disease Control and Prevention - National Center for Immunization and Respiratory Diseases
- Centers for Disease Control and Prevention - National Center for Injury Prevention and Control
- Centers for Disease Control and Prevention - National Institute for Occupational Safety and Health
- Centers for Disease Control and Prevention - Center for Global Health
- Indian Health Service
- Substance Abuse and Mental Health Services Administration - Center for Behavioral Health Statistics and Quality
- Substance Abuse and Mental Health Services Administration - Office of Policy, Planning, and Innovation
- Food and Drug Administration
- Food and Drug Administration - Center for Drug Evaluation and Research
- Administration for Community Living
- Agency for Healthcare Research and Quality
- Office of the Assistant Secretary for Planning and Evaluation
- Office of Population Affairs
- Office of Adolescent Health
- Office of the National Coordinator
- National Institutes of Health - NIH ODP Office of Dietary Supplements

[]

Which office in the Department of Homeland Security are you responding for?

*

Only answer this question if the following conditions are met:
Answer was 'Department of Homeland Security' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

- ◯ U.S. Customs and Border Protection
- ◯ Federal Emergency Management Agency
- ◯ U.S. Immigration and Customs Enforcement
- ◯ Transportation Security Administration
- ◯ Citizenship and Immigration Services
- ◯ National Protection and Programs Directorate
- ◯ Science and Technology Directorate
- ◯ Office of Policy
- ◯ Office of Policy - Office of Immigration Statistics

[]Which office in the Department of Housing and Urban Development do you represent? *

Only answer this question if the following conditions are met:
Answer was 'Department of Housing and Urban Development' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

- ◯ Asst. Sec. for Public and Indian Housing Programs
- ◯ Asst. Sec. for Housing Programs
- ◯ Asst. Sec. for Community Planning and Development
- ◯ Office of Lead Hazard Control and Healthy Homes
- ◯ Policy Development and Research
- ◯ Fair Housing and Equal Opportunity

[]

Which office in the Department of Justice are you responding for?

*

Only answer this question if the following conditions are met:
Answer was 'Department of Justice' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

- ○ Federal Bureau of Investigation - Criminal Justice Information Service
- ○ Federal Bureau of Investigation - Office of the director
- ○ Bureau of Prisons
- ○ Office of Justice Programs - Bureau of Justice Statistics
- ○ Office of Justice Programs - National Institute of Justice
- ○ Office of Justice Programs - Office of Juvenile Justice and Delinquency Prevention
- ○ Office of Justice Programs - Bureau of Justice Assistance
- ○ Office of Justice Programs - Office of Victims of Crime
- ○ Office of Justice Programs - Office of Violence Against Women
- ○ Office of Community Oriented Policing Services
- ○ Drug Enforcement Administration
- ○ Bureau of Alcohol, Tobacco, Firearms, and Explosives

[]

Which office in the Department of Labor are you responding for?

*

Only answer this question if the following conditions are met:
Answer was 'Department of Labor' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

○ Employment and Training Administration

○ Office of Workers' Compensation Programs

○ Occupational Safety and Health Administration

○ Bureau of Labor Statistics

○ Office of the Assistant Secretary for Policy - Chief Evaluation Office

○ Mine Safety and Health Administration

○ Wage and Hour Division

○ Employee Benefits Security Administration

[]

Which office in the Department of State are you responding for?

*

Only answer this question if the following conditions are met:
Answer was 'Department of State' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

○ Evaluation and Aid Effectiveness Branch, Office of US Foreign Assistance Resources

○ Office of Policy and Planning

○ Office of the U.S. Global AIDS Coordinator

[]

Which office in the Department of the Interior are you responding for?

*

Only answer this question if the following conditions are met:
Answer was 'Department of the Interior' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

- ○ National Park Service
- ○ Bureau of Indian Affairs and Bureau of Indian Education
- ○ United States Fish and Wildlife Service
- ○ Bureau of Land Management
- ○ Bureau of Reclamation
- ○ United States Geological Survey
- ○ Office of Surface Mining Reclamation and Enforcement
- ○ Bureau of Safety and Environmental Enforcement
- ○ Bureau of Ocean Energy Management
- ○ Office of Natural Resources Revenue

[]

Which office in the Department of the Treasury are you responding for?

*

Only answer this question if the following conditions are met:
Answer was 'Department of the Treasury' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

- ○ Internal Revenue Service - Research, Analysis, and Statistics
- ○ Internal Revenue Service - Statistics of Income Division
- ○ Bureau of Fiscal Service
- ○ Alcohol and Tobacco Tax and Trade Bureau
- ○ Financial Crimes Enforcement Network
- ○ Bureau of Engraving and Printing
- ○ United States Mint
- ○ Federal Financing Bank

[]

Which office in the Department of the Transportation are you responding for?

*

Only answer this question if the following conditions are met:
Answer was 'Department of Transportation' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

- ⚪ Federal Highway Administration
- ⚪ Federal Aviation Administration
- ⚪ Federal Transit Administration
- ⚪ Federal Railroad Administration
- ⚪ National Highway Traffic Safety Administration
- ⚪ Federal Motor Carrier Safety Administration
- ⚪ Maritime Administration
- ⚪ Pipeline and Hazardous Materials Safety Administration
- ⚪ Saint Lawrence Seaway Development Corporation
- ⚪ Bureau of Transportation Statistics
- ⚪ Surface Transportation Board

[]

Which office in the Department of Veterans Affairs are you responding for?

*

Only answer this question if the following conditions are met:
Answer was 'Department of Veterans Affairs' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

- ⚪ Veterans Health Administration
- ⚪ National Cemetery Administration
- ⚪ National Center for Veterans Analysis and Statistics
- ⚪ Office of Policy and Planning
- ⚪ Veterans Benefits Administration

[]

Which office in the Environmental Protection Agency are you responding for?

*

Only answer this question if the following conditions are met:
Answer was 'Environmental Protection Agency' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

- ○ Office of Policy - Office of Strategic Environmental Management (OSEM)
- ○ Office of Policy - National Center for Environmental Economics
- ○ Office of Water
- ○ Office of Air and Radiation
- ○ Office of Land and Emergency Management
- ○ Office of Chemical Safety and Pollution Prevention
- ○ Office of Enforcement and Compliance Assurance
- ○ Office of Environmental Information

[]

Which office in the National Science Foundation are you responding for?

*

Only answer this question if the following conditions are met:
Answer was 'National Science Foundation' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

- ○ Office of the Director
- ○ National Center for Science and Engineering Statistics
- ○ Office of Integrative Activities

[]

Which office in the Small Business Administration are you responding for?

*

Only answer this question if the following conditions are met:
Answer was 'Small Business Administration' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

○ Office of Performance Management

○ Office of Advocacy

[]

Which office in the Social Security Administration are you responding for?

*

Only answer this question if the following conditions are met:
Answer was 'Social Security Administration' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

○ Office of Research, Demonstration, and Employment Support

○ Office of Research, Evaluation, and Statistics

○ Office of Retirement Policy

○ Office of Income Security Programs

○ Office of Data Exchange and Policy Publications

○ Office of Disability policy

○ Office of the Actuary

[]

Which office in the US Agency for International Development are you responding for?

*

Only answer this question if the following conditions are met:
Answer was 'Corporation for National and Community Service' at question '1 [agency]' (Which Federal agency are you responding for?)

Please choose **only one** of the following:

◯   Office of Learning, Evaluation and Research, Bureau for Policy, Planning and Learning

[] In case we need to follow up with you, please provide your contact information: *

Please write your answer(s) here:

Name	
E-mail Address	
Phone Number	

[]

For the remainder of the survey, please note the following additional definitions:

My/your agency: **the Federal Agency or Department you marked in the first question**

*Another agency***: any Federal Agency or Department other than the one you marked in the first question**

*My/your office***: the Federal office you marked in the second question**

*Another office in my/your agency:***another Federal office within the Agency or Department you marked in the first question**

Representatives: **individuals who receive direction from, but are not directly employed by, your office or agency, including contractors, grantees, and those on interagency personnel agreements (IPAs)**

Approximately what percentage of your office's total annual budget is for *statistical, evaluation, research, or policy analysis purposes?*

Please choose **only one** of the following:

- ⊙ 0 percent
- ⊙ 1 to 10 percent
- ⊙ 11 to 50 percent
- ⊙ 51 to 90 percent
- ⊙ 91 to 100 percent

Statistical, evaluation, research, or policy analysis purposes: activities intended to support the production, analysis, and dissemination of information, including the creation and analysis of federal statistics; production or use of evaluation for federally-supported or -directed programs; research on a population, group of entities, policy, or program; or analysis of policies or proposals to inform decision making. These purposes do NOT include program operations (e.g., compliance monitoring, eligibility determinations, enforcement actions).

[]

Collecting Data

Does your office, or its *representatives*, collect data about *individual units* (e.g., people, businesses, nonprofit organizations, schools) either directly or through an *intermediary source* (e.g., state or local governments, private entities)?

*

Please choose **only one** of the following:

○ Yes, routinely (as a regular part of our programs or processes)

○ Yes, occasionally (not as a regular part of our programs or processes)

○ No

> *Individual unit*: the lowest level unit at which data are collected, such as people, households, businesses, nonprofit organizations, schools. *Intermediary source:* any public or private organization that collects data from individual units and sends them to a Federal office, such as state or local government agencies, postsecondary institutions, grantees, or law enforcement agencies.

[] Approximately what percentage of your office's total annual budget is for collecting data from *individual units*?

Only answer this question if the following conditions are met:
Answer was 'Yes, occasionally (not as a regular part of our programs or processes) ' *or* 'Yes, routinely (as a regular part of our programs or processes) ' at question '24 [collect3]' (Collecting Data Does your office, or its representatives, collect data about individual units (e.g., people, businesses, nonprofit organizations, schools) either directly or through an intermediary source (e.g., state or local governments, private entities)?)

Please choose **only one** of the following:

○ 0 percent

○ 1 to 10 percent

○ 11 to 50 percent

○ 51 to 90 percent

○ 91 to 100 percent

> *Individual unit*: the lowest level unit at which data are collected, such as people, households, businesses, nonprofit organizations, schools.

[]For which of the following purposes does your office, or its representatives, collect data from *individual units*?   *

Only answer this question if the following conditions are met:
Answer was 'Yes, occasionally (not as a regular part of our programs or processes) ' *or* 'Yes, routinely (as a regular part of our programs or processes) ' at question '24 [collect3]' (Collecting Data Does your office, or its representatives, collect data about individual units (e.g., people, businesses, nonprofit organizations, schools) either directly or through an intermediary source (e.g., state or local governments, private entities)?)

Please choose **all** that apply:

☐ To produce statistics about the economy, society, or environment

☐ To evaluate a program to understand its implementation or impact on participants

☐ To support research on a population, group of entities, policy, or program

☐ To conduct analysis of existing policies or programs to assist decision making

☐ To conduct or support program operations

☐ To monitor program or grant performance

☐ Other: [   ]

> *Individual unit*: the lowest level unit at which data are collected, such as people, households, businesses, nonprofit organizations, schools.

[]Are any of the data collected by your office, or its representatives, considered *confidential*?   *

Only answer this question if the following conditions are met:
Answer was 'Yes, routinely (as a regular part of our programs or processes) ' *or* 'Yes, occasionally (not as a regular part of our programs or processes) ' at question '24 [collect3]' (Collecting Data Does your office, or its representatives, collect data about individual units (e.g., people, businesses, nonprofit organizations, schools) either directly or through an intermediary source (e.g., state or local governments, private entities)?)

Please choose **only one** of the following:

○ Yes

○ No

> *Confidential data*: identifiable micro-level data that cannot be made public due to law, policy, or practice.

[]Who analyzes your office's *confidential data*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '27 [confidential6]' (Are any of the data collected by your office, or its representatives, considered confidential?)

Please choose **all** that apply:

☐ Staff physically present in my office

☐ Staff working in a location other than my office (including teleworking)

☐ Contractors physically present in my office

☐ Contractors working in a location other than my office

☐ Staff or contractors in another office in my agency

☐ Staff or contractors in another agency

☐ My office's grantees

☐ Researchers outside of the Federal government

☐ Other: [   ]

> *Confidential data*: identifiable micro-level data that cannot be made public due to law, policy, or practice.

[]

Analyzing Micro-Level Data From Another Agency

Does your office, or its representatives, analyze *micro-level data* collected by any other Federal office or agency?

*

Only answer this question if the following conditions are met:
Answer was 'No' *or* 'Yes, occasionally (not as a regular part of our programs or processes) ' *or* 'Yes, routinely (as a regular part of our programs or processes) ' at question '24 [collect3]' (Collecting Data Does your office, or its representatives, collect data about individual units (e.g., people, businesses, nonprofit organizations, schools) either directly or through an intermediary source (e.g., state or local governments, private entities)?)

Please choose **only one** of the following:

◯ Yes

◯ No

> *Micro-level data*: a data file with an entry (record) for each individual unit.

[]Which of the following kinds of *micro-level data* collected by any other office or agency does your office, or its representatives, analyze?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '29 [micro8]' (Analyzing Micro-Level Data From Another Agency Does your office, or its representatives, analyze micro-level data collected by any other Federal office or agency?)

Please choose **all** that apply:

☐ Criminal justice data

☐ Decennial Census/American Community Survey (ACS)

☐ Education data (Federal)

☐ Education data (State or Private)

☐ Federal data on business program participation

☐ Federal establishment survey data (e.g., Economic and Agricultural Censuses)

☐ Federal tax data

☐ Federal social security data

☐ Human services program data (e.g., SNAP and TANF)

☐ Medicaid/Medicare claims and utilization data

☐ Military service and veteran benefits records

☐ State unemployment insurance wage record data

☐ Vital records (birth and death) data

☐ None of the above

☐ Other: _____

Micro-level data: a data file with an entry (record) for each individual unit.

[]For which of the following purposes does your office, or its representatives, analyze *micro-level data* collected by any other Federal office or agency? *

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '29 [micro8]' (Analyzing Micro-Level Data From Another Agency Does your office, or its representatives, analyze micro-level data collected by any other Federal office or agency?)

Please choose **all** that apply:

☐ To produce statistics about the economy, society, or environment

☐ To evaluate a program to understand its implementation or impact on participants

☐ To support research on a population, group of entities, policy, or program

☐ To conduct analysis of existing policies or programs to assist decision making

☐ To conduct or support program operations

☐ To monitor program or grant performance

☐ Other: [   ]

> *Micro-level data:* a data file with an entry (record) for each individual unit.

[]

Linking Data

Does your office, or its representatives, link the *confidential data* it collects with data from another agency?

***

Only answer this question if the following conditions are met:
Answer was 'Yes, occasionally (not as a regular part of our programs or processes) ' *or* 'Yes, routinely (as a regular part of our programs or processes) ' at question '24 [collect3]' (Collecting Data Does your office, or its representatives, collect data about individual units (e.g., people, businesses, nonprofit organizations, schools) either directly or through an intermediary source (e.g., state or local governments, private entities)?) *and* Answer was 'Yes' at question '27 [confidential6]' (Are any of the data collected by your office, or its representatives, considered confidential?)

Please choose **only one** of the following:

○ Yes

○ No

> *Confidential data*: identifiable micro-level data that cannot be made public due to law, policy, or practice.

[ ]Which of the following kinds of data does your office, or its representatives, link with your *confidential data* collected from *individual units*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '32 [link12]' (Linking Data Does your office, or its representatives, link the confidential data it collects with data from another agency?)

Please choose **all** that apply:

☐ Criminal justice data

☐ Decennial Census/American Community Survey (ACS)

☐ Education data (Federal)

☐ Education data (State or Private)

☐ Federal data on business program participation

☐ Federal establishment survey data (e.g., Economic and Agricultural Censuses)

☐ Federal tax data

☐ Federal social security data

☐ Human services program data (e.g., SNAP and TANF)

☐ Medicaid/Medicare claims and utilization data

☐ Military service and veteran benefits records

☐ State unemployment insurance wage record data

☐ Vital records (birth and death) data

☐ None of the above

☐ Other: _____

> *Confidential data*: identifiable micro-level data that cannot be made public due to law, policy, or practice.
> *Individual unit*: the lowest level unit at which data are collected, such as people, households, businesses, nonprofit organizations, schools.

[ ]Which of the following best describes your process for linking to Criminal justice data?

Only answer this question if the following conditions are met:
Answer was 'Criminal justice data' at question '33 [link13]' (Which of the following kinds of data does your office, or its representatives, link with your confidential data collected from individual units?)

Please choose **all** that apply:

☐ Our office, or its representatives, does the linkage.

☐ Another office or agency, or its representatives, does the linkage.

☐ A third party, or its representatives, does the linkage.

☐ Other: _____

[]

Which of the following best describes your process for linking to Decennial Census/American Community Survey (ACS) data?

Only answer this question if the following conditions are met:
Answer was 'Decennial Census/American Community Survey (ACS)' at question '33 [link13]' (Which of the following kinds of data does your office, or its representatives, link with your confidential data collected from individual units?)

Please choose **all** that apply:

☐ Our office, or its representatives, does the linkage.

☐ Another office or agency, or its representatives, does the linkage.

☐ A third party, or its representatives, does the linkage.

☐ Other: [   ]

[]

Which of the following best describes your process for linking to Education data (Federal)?

Only answer this question if the following conditions are met:
Answer was 'Education data (Federal)' at question '33 [link13]' (Which of the following kinds of data does your office, or its representatives, link with your confidential data collected from individual units?)

Please choose **all** that apply:

☐ Our office, or its representatives, does the linkage.

☐ Another office or agency, or its representatives, does the linkage.

☐ A third party, or its representatives, does the linkage.

☐ Other: [   ]

[]

Which of the following best describes your process for linking to Education data (State)?

Only answer this question if the following conditions are met:
Answer was 'Education data (State or Private)' at question '33 [link13]' (Which of the following kinds of data does your office, or its representatives, link with your confidential data collected from individual units?)

Please choose **all** that apply:

☐ Our office, or its representatives, does the linkage.

☐ Another office or agency, or its representatives, does the linkage.

☐ A third party, or its representatives, does the linkage.

☐ Other: [   ]

[]

Which of the following best describes your process for linking to Federal data on business program participation?

Only answer this question if the following conditions are met:
Answer was 'Federal data on business program participation' at question '33 [link13]' (Which of the following kinds of data does your office, or its representatives, link with your confidential data collected from individual units?)

Please choose **all** that apply:

☐ Our office, or its representatives, does the linkage.

☐ Another office or agency, or its representatives, does the linkage.

☐ A third party, or its representatives, does the linkage.

☐ Other: [   ]

[]

Which of the following best describes your process for linking to Federal establishment survey data (e.g. Economic and Agricultural Censuses)?

Only answer this question if the following conditions are met:
Answer was 'Federal establishment survey data (e.g., Economic and Agricultural Censuses)' at question '33 [link13]' (Which of the following kinds of data does your office, or its representatives, link with your confidential data collected from individual units?)

Please choose **all** that apply:

☐ Our office, or its representatives, does the linkage.

☐ Another office or agency, or its representatives, does the linkage.

☐ A third party, or its representatives, does the linkage.

☐ Other: [   ]

[]

Which of the following best describes your process for linking to Federal tax data?

Only answer this question if the following conditions are met:
Answer was 'Federal tax data' at question '33 [link13]' (Which of the following kinds of data does your office, or its representatives, link with your confidential data collected from individual units?)

Please choose **all** that apply:

☐ Our office, or its representatives, does the linkage.

☐ Another office or agency, or its representatives, does the linkage.

☐ A third party, or its representatives, does the linkage.

☐ Other: [   ]

[]

Which of the following best describes your process for linking to Federal social security data?

Only answer this question if the following conditions are met:
Answer was 'Federal social security data' at question '33 [link13]' (Which of the following kinds of data does your office, or its representatives, link with your confidential data collected from individual units?)

Please choose **all** that apply:

☐   Our office, or its representatives, does the linkage.

☐   Another office or agency, or its representatives, does the linkage.

☐   A third party, or its representatives, does the linkage.

☐ Other: [   ]

[]

Which of the following best describes your process for linking to Human services program data (e.g. SNAP and TANF)?

Only answer this question if the following conditions are met:
Answer was 'Human services program data (e.g., SNAP and TANF)' at question '33 [link13]' (Which of the following kinds of data does your office, or its representatives, link with your confidential data collected from individual units?)

Please choose **all** that apply:

☐   Our office, or its representatives, does the linkage.

☐   Another office or agency, or its representatives, does the linkage.

☐   A third party, or its representatives, does the linkage.

☐ Other: [   ]

[]

Which of the following best describes your process for linking to Medicaid/Medicare claims and utilization data?

Only answer this question if the following conditions are met:
Answer was 'Medicaid/Medicare claims and utilization data' at question '33 [link13]' (Which of the following kinds of data does your office, or its representatives, link with your confidential data collected from individual units?)

Please choose **all** that apply:

☐ Our office, or its representatives, does the linkage.

☐ Another office or agency, or its representatives, does the linkage.

☐ A third party, or its representatives, does the linkage.

☐ Other: [   ]

[]

Which of the following best describes your process for linking to Military service and veteran benefits records?

Only answer this question if the following conditions are met:
Answer was 'Military service and veteran benefits records' at question '33 [link13]' (Which of the following kinds of data does your office, or its representatives, link with your confidential data collected from individual units?)

Please choose **all** that apply:

☐ Our office, or its representatives, does the linkage.

☐ Another office or agency, or its representatives, does the linkage.

☐ A third party, or its representatives, does the linkage.

☐ Other: [   ]

[]

Which of the following best describes your process for linking to State unemployment insurance wage record data?

Only answer this question if the following conditions are met:
Answer was 'State unemployment insurance wage record data' at question '33 [link13]' (Which of the following kinds of data does your office, or its representatives, link with your confidential data collected from individual units?)

Please choose **all** that apply:

☐ Our office, or its representatives, does the linkage.

☐ Another office or agency, or its representatives, does the linkage.

☐ A third party, or its representatives, does the linkage.

☐ Other: [   ]

[]

Which of the following best describes your process for linking to Vital records (birth and death) data?

Only answer this question if the following conditions are met:
Answer was 'Vital records (birth and death) data' at question '33 [link13]' (Which of the following kinds of data does your office, or its representatives, link with your confidential data collected from individual units?)

Please choose **all** that apply:

☐ Our office, or its representatives, does the linkage.

☐ Another office or agency, or its representatives, does the linkage.

☐ A third party, or its representatives, does the linkage.

☐ Other: [   ]

[ ]Does your office have staff or contractors whose *primary job duties* involve the technical process of *data linkage*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '32 [link12]' (Linking Data Does your office, or its representatives, link the confidential data it collects with data from another agency?)

Please choose **only one** of the following:

○ Yes

○ No

> *Primary job duties*: duties performed more than 50% of full-time equivalent work hours. *Data linkage*: the merging of two or more micro-level datasets originally collected for different purposes.

[ ]How many staff or contractors does your office have whose *primary job duties* involve the technical process of *data linkage*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '47 [linkstaff18]' (Does your office have staff or contractors whose primary job duties involve the technical process of data linkage?)

Please choose **only one** of the following:

○ 1 to 2

○ 3 to 5

○ 6 to 10

○ More than 10

> *Primary job duties*: duties performed more than 50% of full-time equivalent work hours. *Data linkage*: the merging of two or more micro-level datasets originally collected for different purposes.

[]Which of the following statements best describes the regularity of *data linkage* in your office?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '32 [link12]' (Linking Data Does your office, or its representatives, link the confidential data it collects with data from another agency?)

Please choose **only one** of the following:

○ All of our data linkages are for ad hoc projects.

○ Most of our data linkages are for ad hoc projects; a few are a part of our regular processes.

○ Our data linkages are about evenly split between ad hoc projects and regular processes.

○ Most of our data linkages are a part of our regular process; a few are ad hoc projects

○ All of our data linkages are part of our regular processes.

> *Data linkage*: the merging of two or more micro-level datasets originally collected for different purposes.

[]How does your office pay for *data linkage*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '32 [link12]' (Linking Data Does your office, or its representatives, link the confidential data it collects with data from another agency?)

Please choose **all** that apply:

☐ My office has a specific budget allocation that covers data linkage.

☐ My office chooses to set aside a portion of the budget to help pay for data linkage.

☐ Programs within my office that do data linkage absorb the cost in their budgets.

☐ Other offices provide funds for data linkages.

☐ User fees help pay for data linkage.

☐ Other: [   ]

> *Data linkage*: the merging of two or more micro-level datasets originally collected for different purposes.

[]Which of the following does your office, or its representatives, use for *data linkage?*

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '32 [link12]' (Linking Data Does your office, or its representatives, link the confidential data it collects with data from another agency?)

Please choose **all** that apply:

☐ A probabilistic match of key characteristics.

☐ A linking key (personal identifier).

☐ A combination of probabilistic matching and linking keys.

☐ Don't know

☐ Other: _____

> *Data linkage*: the merging of two or more micro-level datasets originally collected for different purposes.

[]Which of the following keys does your office, or its representatives, use for *data linkage*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '32 [link12]' (Linking Data Does your office, or its representatives, link the confidential data it collects with data from another agency?)

Please choose **all** that apply:

☐ Social Security Number (SSN)

☐ Masked SSN

☐ Employer Identification Number (EIN)

☐ Name

☐ Address

☐ Date of Birth

☐ Biometrics (e.g., fingerprints)

☐ Don't know

☐ Other: _____

> *Data linkage*:the merging of two or more micro-level datasets originally collected for different purposes.

[]How does your office, or its representatives, secure data linking keys?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '32 [link12]' (Linking Data Does your office, or its representatives, link the confidential data it collects with data from another agency?)

Please choose **all** that apply:

☐ By restricting access to the linkage key or linkage key crosswalk.

☐ By generating a pseudo-anonymous key (e.g., hash, unique ID, etc) for linking.

☐ By generating a different pseudo-anonymous key (e.g., hash, unique ID, etc) for each linkage or for

each data source.

☐ By removing the linkage key from the file(s) once linkage is complete.

☐ Don't know

☐ Other: [_____]

[]Does your office, or its representatives, keep *micro-level data* that are linked for *statistical, research, evaluation, or policy analysis purposes* so they can be analyzed again at a later time?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '32 [link12]' (Linking Data Does your office, or its representatives, link the confidential data it collects with data from another agency?)

Please choose **only one** of the following:

○ Yes, routinely (as a regular part of our programs or processes)

○ Yes, occasionally (not as a regular part of our programs or processes)

○ No

> *Micro-level data:* a data file with an entry (record) for each individual unit. *Statistical, evaluation, research, or policy analysis purposes*: activities intended to support the production, analysis, and dissemination of information, including the creation and analysis of federal statistics; production or use of evaluation for federally-supported or -directed programs; research on a population, group of entities, policy, or program; or analysis of policies or proposals to inform decision making. These purposes do NOT include program operations (e.g., compliance monitoring, eligibility determinations, enforcement actions).

[]

Accessing Data

Does another agency, or its representatives,ever access your office's *confidential data* for its own *statistical, evaluation, research, or policy analysis purposes*?

*

Only answer this question if the following conditions are met:
Answer was 'Yes, occasionally (not as a regular part of our programs or processes) ' *or* 'Yes, routinely (as a regular part of our programs or processes) ' at question '24 [collect3]' (Collecting Data Does your office, or its representatives, collect data about individual units (e.g., people, businesses, nonprofit organizations, schools) either directly or through an intermediary source (e.g., state or local governments, private entities)?) *and* Answer was 'Yes' at question '27 [confidential6]' (Are any of the data collected by your office, or its representatives, considered confidential?)

Please choose **only one** of the following:

○ Yes

○ No

> **Confidential data**: identifiable micro-level data that cannot be made public due to law, policy, or practice.
> **Statistical, evaluation, research, or policy analysis purposes**: activities intended to support the production, analysis, and dissemination of information, including the creation and analysis of federal statistics; production or use of evaluation for federally-supported or -directed programs; research on a population, group of entities, policy, or program; or analysis of policies or proposals to inform decision making. These purposes do NOT include program operations (e.g., compliance monitoring, eligibility determinations, enforcement actions).

[]How does another agency, or its representatives, access your office's *confidential data*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '55 [access27]' (Accessing Data Does another agency, or its representatives, ever access your office's confidential data for its own statistical, evaluation, research, or policy analysis purposes?)

Please choose **all** that apply:

☐ Staff or contractors come onsite to my office or agency to access the data.

☐ Through a Federal Statistical Research Data Center (FSRDC)

☐ Through a distributed thin client Citrix or VPN network

☐ Through a Memorandum of Understanding (MOU), license, or contract agreement

☐ Through a data archive (e.g., Interuniversity Consortium for Political and Social Research)

☐ Other: _____

> **Confidential data**: identifiable micro-level data that cannot be made public due to law, policy, or practice.

[]Approximately how many other agencies, or their representatives, access your office's *confidential data* each year*?*

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '55 [access27]' (Accessing Data Does another agency, or its representatives, ever access your office's confidential data for its own statistical, evaluation, research, or policy analysis purposes?)

Please choose **only one** of the following:

○ 1 to 2

○ 3 to 5

○ 6 to 10

○ More than 10

> ***Confidential data***: identifiable micro-level data that cannot be made public due to law, policy, or practice.

[]Which of the following statements best describes how regularly another agency*, or its representatives, access your office's *confidential data*?**

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '55 [access27]' (Accessing Data Does another agency, or its representatives, ever access your office's confidential data for its own statistical, evaluation, research, or policy analysis purposes?)

Please choose **only one** of the following:

○ Many other agencies routinely (e.g., annually, quarterly, monthly) access my office's confidential

data.

○ A few other agencies routinely (e.g., annually, quarterly, monthly) access my office's confidential

data.

○ Many other agencies occasionally (i.e. on an ad hoc basis) access my office's confidential data.

○ A few other agencies occasionally (i.e. on an ad hoc basis) access my office's confidential data.

○ Some agencies routinely (e.g., annually, quarterly, monthly) and some agencies occasionally (i.e. on

an ad hoc basis) access my office's confidential data.

> ***Confidential data***: identifiable micro-level data that cannot be made public due to law, policy, or practice.

[]Do researchers outside of the Federal government ever access your office's *confidential data***? ***

Only answer this question if the following conditions are met:
Answer was 'Yes, occasionally (not as a regular part of our programs or processes) ' *or* 'Yes, routinely (as a regular part of our programs or processes) ' at question '24 [collect3]' (Collecting Data Does your office, or its representatives, collect data about individual units (e.g., people, businesses, nonprofit organizations, schools) either directly or through an intermediary source (e.g., state or local governments, private entities)?) *and* Answer was 'Yes' at question '27 [confidential6]' (Are any of the data collected by your office, or its representatives, considered confidential?)

Please choose **only one** of the following:

○ Yes

○ No

> *Confidential data*: identifiable micro-level data that cannot be made public due to law, policy, or practice.

[]Approximately how many outside researchers access your office's *confidential data***each year***?*

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '59 [outside30]' (Do researchers outside of the Federal government ever access your office's confidential data?)

Please choose **only one** of the following:

○ 1 to 10

○ 11 to 50

○ 51 to 100

○ More than 100

> *Confidential data*: micro-level data deemed sensitive because it could potentially identify individual units.

[]How do researchers outside of the Federal government access your office's *confidential data*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '59 [outside30]' (Do researchers outside of the Federal government ever access your office's confidential data?)

Please choose **all** that apply:

☐ The researcher comes onsite to my office or agency to access the data.

☐ Through a Federal Statistical Research Data Center (FSRDC)

☐ Through a distributed thin client Citrix or VPN network

☐ Through a license or contract agreement with researchers and their institutions

☐ Through a data archive (e.g., Interuniversity Consortium for Political and Social Research)

☐ Other: _____

> *Confidential data*: identifiable micro-level data that cannot be made public due to law, policy, or practice.

[]Does your office receive and review requests from outside researchers for access to *confidential data*? *

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '59 [outside30]' (Do researchers outside of the Federal government ever access your office's confidential data?)

Please choose **only one** of the following:

◯ Yes

◯ No

> *Confidential data*: identifiable micro-level data that cannot be made public due to law, policy, or practice.

[]How often does your office receive new requests from outside researchers for access to *confidential data*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '62 [review32]' (Does your office receive and review requests from outside researchers for access to confidential data?)

Please choose **only one** of the following:

○ Daily

○ Weekly

○ Monthly

○ Yearly

○ Sporadically

> *Confidential data*: identifiable micro-level data that cannot be made public due to law, policy, or practice.

[]Which of the following statements best describes how regularly outside researchers access your office's *confidential data*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '59 [outside30]' (Do researchers outside of the Federal government ever access your office's confidential data?)

Please choose **only one** of the following:

○ Many outside researchers routinely (e.g. annually, quarterly, monthly) access my office's confidential data.

○ A few outside reseachers routinely (e.g. annually, quarterly, monthly) access my office's confidential data.

○ Many outside researchers occasionally (i.e. on an ad hoc basis) access my office's confidential data.

○ A few outside researchers occasionally (i.e. on an ad hoc basis) access my office's confidential data.

○ Some outside researchers routinely (e.g. annually, quarterly, monthly) and some outside researchers occasionally (i.e. on an ad hoc basis) access my office's confidential data.

> *Confidential data*: identifiable micro-level data that cannot be made public due to law, policy, or practice.

[]Does your office have staff or contractors whose *primary job duties* involve reviewing and processing outside researcher requests for access to *confidential data*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '62 [review32]' (Does your office receive and review requests from outside researchers for access to confidential data?)

Please choose **only one** of the following:

○ Yes

○ No

Primary job duties: duties performed more than 50% of full-time equivalent work hours. *Confidential data*: identifiable micro-level data that cannot be made public due to law, policy, or practice.

[]How many staff or contractors does your office have whose *primary job duties* involve reviewing and processing outside researcher requests for access to *confidential data*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '65 [prim35]' (Does your office have staff or contractors whose primary job duties involve reviewing and processing outside researcher requests for access to confidential data?)

Please choose **only one** of the following:

○ 1 to 2

○ 3 to 5

○ 6 to 10

○ More than 10

Primary job duties: duties performed more than 50% of full-time equivalent work hours. *Confidential data*: identifiable micro-level data that cannot be made public due to law, policy, or practice.

[]Does your office have a system for tracking requests from outside researchers for access to *confidential data*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '62 [review32]' (Does your office receive and review requests from outside researchers for access to confidential data?)

Please choose **only one** of the following:

○ Yes

○ No

Confidential data: identifiable micro-level data that cannot be made public due to law, policy, or practice.

[]Does your office have a process for reviewing output produced by outside researchers to prevent disclosure of the identities of *individual units*? *

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '62 [review32]' (Does your office receive and review requests from outside researchers for access to confidential data?)

Please choose **only one** of the following:

○ Yes

○ No

Individual unit: the lowest level unit at which data are collected, such as people, households, businesses, nonprofit organizations, schools.

[]How often does your office receive new requests for disclosure review of outside researcher analyses?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '68 [outrev37]' (Does your office have a process for reviewing output produced by outside researchers to prevent disclosure of the identities of individual units?)

Please choose **only one** of the following:

○ Daily

○ Weekly

○ Monthly

○ Yearly

○ Sporadically

[]Does your office have a process for documenting the results of disclosure review of outside researcher analyses?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '68 [outrev37]' (Does your office have a process for reviewing output produced by outside researchers to prevent disclosure of the identities of individual units?)

Please choose **only one** of the following:

○ Yes

○ No

[]Does your office have staff or contractors whose *primary job duties* involve disclosure review of outside researcher analyses?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '68 [outrev37]' (Does your office have a process for reviewing output produced by outside researchers to prevent disclosure of the identities of individual units?)

Please choose **only one** of the following:

○ Yes

○ No

Primary job duties: duties performed more than 50% of full-time equivalent work hours.

[]How many staff or contractors does your office have whose *primary job duties* involve disclosure review of outside researcher analyses?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '71 [staff39]' (Does your office have staff or contractors whose primary job duties involve disclosure review of outside researcher analyses?)

Please choose **only one** of the following:

○ 1 to 2

○ 3 to 5

○ 6 to 10

○ More than 10

○ Other _____

Primary job duties: duties performed more than 50% of full-time equivalent work hours.

[]Does your office, or its representatives, typically create metadata or technical documentation for the data it produces that includes the following?

Only answer this question if the following conditions are met:
Answer was 'Yes, occasionally (not as a regular part of our programs or processes) ' *or* 'Yes, routinely (as a regular part of our programs or processes) ' at question '24 [collect3]' (Collecting Data Does your office, or its representatives, collect data about individual units (e.g., people, businesses, nonprofit organizations, schools) either directly or through an intermediary source (e.g., state or local governments, private entities)?)

Please choose the appropriate response for each item:

	Yes	No
Variable definitions, units of measurement, and response ranges	○	○
Changes to definitions, scope, or data collection processes over time	○	○
Imputation procedures or other edits to the data	○	○

[]

Managing Historical Data

Does your office, or its representatives, have a process for archiving, managing, and retrieving your historical *micro-level data*?

*

Only answer this question if the following conditions are met:
Answer was 'Yes, occasionally (not as a regular part of our programs or processes) ' *or* 'Yes, routinely (as a regular part of our programs or processes) ' at question '24 [collect3]' (Collecting Data Does your office, or its representatives, collect data about individual units (e.g., people, businesses, nonprofit organizations, schools) either directly or through an intermediary source (e.g., state or local governments, private entities)?)

Please choose **only one** of the following:

○ Yes

○ No

Micro-level data: a data file with an entry (record) for each individual unit.

[]Does your office have staff or contractors whose *primary job duties* involve archiving, managing, and retrieving your historical *micro-level data*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '74 [arch41]' (Managing Historical Data Does your office, or its representatives, have a process for archiving, managing, and retrieving your historical micro-level data?)

Please choose **only one** of the following:

○ Yes

○ No

> *Primary job duties*: duties performed more than 50% of full-time equivalent work hours. *Micro-level data:* a data file with an entry (record) for each individual unit.

[]How many staff or contractors does your office have whose *primary job duties* involve archiving, managing, and retrieving your historical *micro-level data*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '75 [hist42]' (Does your office have staff or contractors whose primary job duties involve archiving, managing, and retrieving your historical micro-level data?)

Please choose **only one** of the following:

○ 1 to 2

○ 3 to 5

○ 6 to 10

○ More than 10

> *Micro-level data:* a data file with an entry (record) for each individual unit. *Primary job duties*: duties performed more than 50% of full-time equivalent work hours.

[] Does your office, or its representatives, continue to manage or clean your historical *micro-level data*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '74 [arch41]' (Managing Historical Data Does your office, or its representatives, have a process for archiving, managing, and retrieving your historical micro-level data?)

Please choose **only one** of the following:

○ Yes

○ No

> *Micro-level data:* a data file with an entry (record) for each individual unit.

[]How easy or difficult is it for your office, or its representatives, to retrieve and use your historical *micro-level data*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '74 [arch41]' (Managing Historical Data Does your office, or its representatives, have a process for archiving, managing, and retrieving your historical micro-level data?)

Please choose **only one** of the following:

○ very easy

○ somewhat easy

○ somewhat difficult

○ very difficult

Micro-level data: a data file with an entry (record) for each individual unit.

[]When does your office, or its representatives, destroy your historical *micro-level data*?

Only answer this question if the following conditions are met:
Answer was 'Yes' at question '74 [arch41]' (Managing Historical Data Does your office, or its representatives, have a process for archiving, managing, and retrieving your historical micro-level data?)

Please choose **all** that apply:

☐ We archive all historical micro-level data.

☐ We destroy historical micro-level data when they are no longer being used for the purpose for which they were collected.

☐ We destroy historical micro-level data on a schedule established by statute, regulation, or policy.

☐ We destroy historical micro-level data when they are no longer relevant for research or policy analysis.

☐ We destroy historical micro-level data when we can no longer support their antiquated data structure.

☐ Other: [   ]

Micro-level data: a data file with an entry (record) for each individual unit.

[]

Using Data for Statistical, Evaluation, Research, or Policy Analysis Purposes

---

Which of the following kinds ofdata has your office, or its representatives, considered using for *statistical, evaluation, research, or policy analysis purposes* but did not because it was too hard to get access to the specific dataset you needed?

Only answer this question if the following conditions are met:

-------- Scenario 1 --------

Answer was 'To evaluate a program to understand its implementation or impact on participants ' *or* 'To produce statistics about the economy, society, or environment ' *or* 'To support research on a population, group of entities, policy, or program' *or* 'To conduct analysis of existing policies or programs to assist decision making ' at question '26 [purpose5]' (For which of the following purposes does your office, or its representatives, collect data from individual units?)

-------- or Scenario 2 --------

Answer was 'To produce statistics about the economy, society, or environment ' *or* 'To evaluate a program to understand its implementation or impact on participants ' *or* 'To support research on a population, group of entities, policy, or program' *or* 'To conduct analysis of existing policies or programs to assist decision making ' at question '31 [micropurpose10]' (For which of the following purposes does your office, or its representatives, analyze micro-level data collected by any other Federal office or agency?)

-------- or Scenario 3 --------

Answer was '91 to 100 percent ' *or* '51 to 90 percent' *or* '11 to 50 percent' *or* '1 to 10 percent' at question '23 [SERA46]' (For the remainder of the survey, please note the following additional definitions: My/your agency: the Federal Agency or Department you marked in the first question Another agency: any Federal Agency or Department other than the one you marked in the first question My/your office: the Federal office you marked in the second question   Another office in my/your agency: another Federal office within the Agency or Department you marked in the first question   Representatives: individuals who receive direction from, but are not directly employed by, your office or agency, including contractors, grantees, and those on interagency personnel agreements (IPAs) Approximately what percentage of your office's total annual budget is for statistical, evaluation, research, or policy analysis purposes?   )

Please choose **all** that apply:

- ☐ Criminal justice data
- ☐ Decennial Census/American Community Survey (ACS)
- ☐ Education data (Federal)
- ☐ Education data (State or Private)
- ☐ Federal data on business program participation
- ☐ Federal establishment survey data (e.g., Economic and Agricultural Censuses)
- ☐ Federal tax data
- ☐ Federal social security data
- ☐ Human services program data (e.g., SNAP and TANF)
- ☐ Medicaid/Medicare claims and utilization data
- ☐ Military service and veteran benefits records
- ☐ State unemployment insurance wage record data

☐ Vital records (birth and death) data

☐ None of the above

Statistical, evaluation, research, or policy analysis purposes: activities intended to support the production, analysis, and dissemination of information, including the creation and analysis of federal statistics; production or use of evaluation for federally-supported or -directed programs; research on a population, group of entities, policy, or program; or analysis of policies or proposals to inform decision making. These purposes do NOT include program operations (e.g., compliance monitoring, eligibility determinations, enforcement actions).

[]Which of the following factors made it hard for your office to get access to Criminal justice data? *

Only answer this question if the following conditions are met:
Answer was 'Criminal justice data' at question '80 [notlink14]' (Using Data for Statistical, Evaluation, Research, or Policy Analysis Purposes Which of the following kinds of data has your office, or its representatives, considered using for statistical, evaluation, research, or policy analysis purposes but did not because it was too hard to get access to the specific dataset you needed?)

Please choose **all** that apply:

☐ Lack of staff, policies, and procedures to establish data sharing agreements

☐ Statutes prohibiting data sharing

☐ Regulations or policies that make it difficult to link data

☐ Lack of capacity in information technology systems

☐ Lack of staff or contractors with specific technical expertise needed to link data

☐ Concerns about keeping the linked data secure and confidential

☐ Other: [   ]

[]

Was the lack of staff, policies, and procedures to establish data sharing agreements:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff, policies, and procedures to establish data sharing agreements ' at question '81 [cjac15]' (Which of the following factors made it hard for your office to get access to Criminal justice data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Were the statutes prohibiting data sharing:

Only answer this question if the following conditions are met:
Answer was 'Statutes prohibiting data sharing ' at question '81 [cjac15]' (Which of the following factors made it hard for your office to get access to Criminal justice data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Were the regulations or policies that make it difficult to link data:

Only answer this question if the following conditions are met:
Answer was 'Regulations or policies that make it difficult to link data ' at question '81 [cjac15]' (Which of the following factors made it hard for your office to get access to Criminal justice data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Was the lack of capacity in information technology systems:

Only answer this question if the following conditions are met:
Answer was 'Lack of capacity in information technology systems ' at question '81 [cjac15]' (Which of the following factors made it hard for your office to get access to Criminal justice data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Was the lack of staff or contractors with specific technical expertise needed to link data:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff or contractors with specific technical expertise needed to link data ' at question '81 [cjac15]' (Which of the following factors made it hard for your office to get access to Criminal justice data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Were the concerns about keeping the linked data secure and confidential:

Only answer this question if the following conditions are met:
Answer was 'Concerns about keeping the linked data secure and confidential ' at question '81 [cjac15]' (Which of the following factors made it hard for your office to get access to Criminal justice data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]Which of the following factors made it hard for your office to get access to Decennial Census/American Community Survey (ACS) data?

Only answer this question if the following conditions are met:
Answer was 'Decennial Census/American Community Survey (ACS)' at question '80 [notlink14]' (Using Data for Statistical, Evaluation, Research, or Policy Analysis Purposes Which of the following kinds of data has your office, or its representatives, considered using for statistical, evaluation, research, or policy analysis purposes but did not because it was too hard to get access to the specific dataset you needed?)

Please choose **all** that apply:

☐ Lack of staff, policies, and procedures to establish data sharing agreements

☐ Statutes prohibiting data sharing

☐ Regulations or policies that make it difficult to link data

☐ Lack of capacity in information technology systems

☐ Lack of staff or contractors with specific technical expertise needed to link data

☐ Concerns about keeping the linked data secure and confidential

☐ Other: _____

[]

Was the lack of staff, policies, and procedures to establish data sharing agreements:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff, policies, and procedures to establish data sharing agreements ' at question '88 [decac15]' (Which of the following factors made it hard for your office to get access to Decennial Census/American Community Survey (ACS) data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the statutes prohibiting data sharing:

Only answer this question if the following conditions are met:
Answer was 'Statutes prohibiting data sharing ' at question '88 [decac15]' (Which of the following factors made it hard for your office to get access to Decennial Census/American Community Survey (ACS) data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the regulations or policies that make it difficult to link data:

Only answer this question if the following conditions are met:
Answer was 'Regulations or policies that make it difficult to link data ' at question '88 [decac15]' (Which of the following factors made it hard for your office to get access to Decennial Census/American Community Survey (ACS) data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Was the lack of capacity in information technology systems:

Only answer this question if the following conditions are met:
Answer was 'Lack of capacity in information technology systems ' at question '88 [decac15]' (Which of the following factors made it hard for your office to get access to Decennial Census/American Community Survey (ACS) data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Was the lack of staff or contractors with specific technical expertise needed to link data:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff or contractors with specific technical expertise needed to link data ' at question '88 [decac15]' (Which of the following factors made it hard for your office to get access to Decennial Census/American Community Survey (ACS) data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the concerns about keeping the linked data secure and confidential:

Only answer this question if the following conditions are met:
Answer was 'Concerns about keeping the linked data secure and confidential ' at question '88 [decac15]' (Which of the following factors made it hard for your office to get access to Decennial Census/American Community Survey (ACS) data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]Which of the following factors made it hard for your office to get access to Education data (Federal)?

Only answer this question if the following conditions are met:
Answer was 'Education data (Federal)' at question '80 [notlink14]' (Using Data for Statistical, Evaluation, Research, or Policy Analysis Purposes Which of the following kinds of data has your office, or its representatives, considered using for statistical, evaluation, research, or policy analysis purposes but did not because it was too hard to get access to the specific dataset you needed?)

Please choose **all** that apply:

☐ Lack of staff, policies, and procedures to establish data sharing agreements

☐ Statutes prohibiting data sharing

☐ Regulations or policies that make it difficult to link data

☐ Lack of capacity in information technology systems

☐ Lack of staff or contractors with specific technical expertise needed to link data

☐ Concerns about keeping the linked data secure and confidential

☐ Other: _____

[]

Was the lack of staff, policies, and procedures to establish data sharing agreements:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff, policies, and procedures to establish data sharing agreements ' at question '95 [fededac15]' (Which of the following factors made it hard for your office to get access to Education data (Federal)?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the statutes prohibiting data sharing:

Only answer this question if the following conditions are met:
Answer was 'Statutes prohibiting data sharing ' at question '95 [fededac15]' (Which of the following factors made it hard for your office to get access to Education data (Federal)?)

Please choose **all** that apply:

- ☐ In your office?
- ☐ In another office in your agency?
- ☐ In another agency?

[]

Were the regulations or policies that make it difficult to link data:

Only answer this question if the following conditions are met:
Answer was 'Regulations or policies that make it difficult to link data ' at question '95 [fededac15]' (Which of the following factors made it hard for your office to get access to Education data (Federal)?)

Please choose **all** that apply:

- ☐ In your office?
- ☐ In another office in your agency?
- ☐ In another agency?

[]

Was the lack of capacity in information technology systems:

Only answer this question if the following conditions are met:
Answer was 'Lack of capacity in information technology systems ' at question '95 [fededac15]' (Which of the following factors made it hard for your office to get access to Education data (Federal)?)

Please choose **all** that apply:

- ☐ In your office?
- ☐ In another office in your agency?
- ☐ In another agency?

[]

Was the lack of staff or contractors with specific technical expertise needed to link data:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff or contractors with specific technical expertise needed to link data ' at question '95 [fededac15]' (Which of the following factors made it hard for your office to get access to Education data (Federal)?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the concerns about keeping the linked data secure and confidential:

Only answer this question if the following conditions are met:
Answer was 'Concerns about keeping the linked data secure and confidential ' at question '95 [fededac15]' (Which of the following factors made it hard for your office to get access to Education data (Federal)?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]Which of the following factors made it hard for your office to get access to Education data (State)?

Only answer this question if the following conditions are met:
Answer was 'Education data (State or Private)' at question '80 [notlink14]' (Using Data for Statistical, Evaluation, Research, or Policy Analysis Purposes Which of the following kinds of data has your office, or its representatives, considered using for statistical, evaluation, research, or policy analysis purposes but did not because it was too hard to get access to the specific dataset you needed?)

Please choose **all** that apply:

☐ Lack of staff, policies, and procedures to establish data sharing agreements

☐ Statutes prohibiting data sharing

☐ Regulations or policies that make it difficult to link data

☐ Lack of capacity in information technology systems

☐ Lack of staff or contractors with specific technical expertise needed to link data

☐ Concerns about keeping the linked data secure and confidential

☐ Other: [   ]

[]

Was the lack of staff, policies, and procedures to establish data sharing agreements:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff, policies, and procedures to establish data sharing agreements ' at question '102 [stedac15]' (Which of the following factors made it hard for your office to get access to Education data (State)?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

☐ Other: [   ]

[]

Were the statutes prohibiting data sharing:

Only answer this question if the following conditions are met:
Answer was 'Statutes prohibiting data sharing ' at question '102 [stedac15]' (Which of the following factors made it hard for your office to get access to Education data (State)?)

Please choose **all** that apply:

- ☐ In your office?
- ☐ In another office in your agency?
- ☐ In another agency?
- ☐ At the state or local level?
- ☐ Other: _____

[]

Were the regulations or policies that make it difficult to link data:

Only answer this question if the following conditions are met:
Answer was 'Regulations or policies that make it difficult to link data ' at question '102 [stedac15]' (Which of the following factors made it hard for your office to get access to Education data (State)?)

Please choose **all** that apply:

- ☐ In your office?
- ☐ In another office in your agency?
- ☐ In another agency?
- ☐ At the state or local level?
- ☐ Other: _____

[]

Was the lack of capacity in information technology systems:

Only answer this question if the following conditions are met:
Answer was 'Lack of capacity in information technology systems ' at question '102 [stedac15]' (Which of the following factors made it hard for your office to get access to Education data (State)?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

☐ Other: [   ]

[]

Was the lack of staff or contractors with specific technical expertise needed to link data:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff or contractors with specific technical expertise needed to link data ' at question '102 [stedac15]' (Which of the following factors made it hard for your office to get access to Education data (State)?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

☐ Other: [   ]

[]

Were the concerns about keeping the linked data secure and confidential:

Only answer this question if the following conditions are met:
Answer was 'Concerns about keeping the linked data secure and confidential ' at question '102 [stedac15]' (Which of the following factors made it hard for your office to get access to Education data (State)?)

Please choose **all** that apply:

- ☐ In your office?
- ☐ In another office in your agency?
- ☐ In another agency?
- ☐ At the state or local level?
- ☐ Other: _____

[]Which of the following factors made it hard for your office to get access to Federal data on business program participation?

Only answer this question if the following conditions are met:
Answer was 'Federal data on business program participation' at question '80 [notlink14]' (Using Data for Statistical, Evaluation, Research, or Policy Analysis Purposes Which of the following kinds of data has your office, or its representatives, considered using for statistical, evaluation, research, or policy analysis purposes but did not because it was too hard to get access to the specific dataset you needed?)

Please choose **all** that apply:

- ☐ Lack of staff, policies, and procedures to establish data sharing agreements
- ☐ Statutes prohibiting data sharing
- ☐ Regulations or policies that make it difficult to link data
- ☐ Lack of capacity in information technology systems
- ☐ Lack of staff or contractors with specific technical expertise needed to link data
- ☐ Concerns about keeping the linked data secure and confidential
- ☐ Other: _____

[]

Was the lack of staff, policies, and procedures to establish data sharing agreements:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff, policies, and procedures to establish data sharing agreements ' at question '109 [bppac15]' (Which of the following factors made it hard for your office to get access to Federal data on business program participation?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the statutes prohibiting data sharing:

Only answer this question if the following conditions are met:
Answer was 'Statutes prohibiting data sharing ' at question '109 [bppac15]' (Which of the following factors made it hard for your office to get access to Federal data on business program participation?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the regulations or policies that make it difficult to link data:

Only answer this question if the following conditions are met:
Answer was 'Regulations or policies that make it difficult to link data ' at question '109 [bppac15]' (Which of the following factors made it hard for your office to get access to Federal data on business program participation?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Was the lack of capacity in information technology systems:

Only answer this question if the following conditions are met:
Answer was 'Lack of capacity in information technology systems ' at question '109 [bppac15]' (Which of the following factors made it hard for your office to get access to Federal data on business program participation?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Was the lack of staff or contractors with specific technical expertise needed to link data:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff or contractors with specific technical expertise needed to link data ' at question '109 [bppac15]' (Which of the following factors made it hard for your office to get access to Federal data on business program participation?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the concerns about keeping the linked data secure and confidential:

Only answer this question if the following conditions are met:
Answer was 'Concerns about keeping the linked data secure and confidential ' at question '109 [bppac15]' (Which of the following factors made it hard for your office to get access to Federal data on business program participation?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]Which of the following factors made it hard for your office to get access to Federal establishment survey data (e.g. Economic and Agricultural Censuses)?

Only answer this question if the following conditions are met:
Answer was 'Federal establishment survey data (e.g., Economic and Agricultural Censuses)' at question '80 [notlink14]' (Using Data for Statistical, Evaluation, Research, or Policy Analysis Purposes Which of the following kinds of data has your office, or its representatives, considered using for statistical, evaluation, research, or policy analysis purposes but did not because it was too hard to get access to the specific dataset you needed?)

Please choose **all** that apply:

☐ Lack of staff, policies, and procedures to establish data sharing agreements

☐ Statutes prohibiting data sharing

☐ Regulations or policies that make it difficult to link data

☐ Lack of capacity in information technology systems

☐ Lack of staff or contractors with specific technical expertise needed to link data

☐ Concerns about keeping the linked data secure and confidential

☐ Other: _____

[]

Was the lack of staff, policies, and procedures to establish data sharing agreements:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff, policies, and procedures to establish data sharing agreements ' at question '116 [estbac15]' (Which of the following factors made it hard for your office to get access to Federal establishment survey data (e.g. Economic and Agricultural Censuses)?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the statutes prohibiting data sharing:

Only answer this question if the following conditions are met:
Answer was 'Statutes prohibiting data sharing ' at question '116 [estbac15]' (Which of the following factors made it hard for your office to get access to Federal establishment survey data (e.g. Economic and Agricultural Censuses)?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the regulations or policies that make it difficult to link data:

Only answer this question if the following conditions are met:
Answer was 'Regulations or policies that make it difficult to link data ' at question '116 [estbac15]' (Which of the following factors made it hard for your office to get access to Federal establishment survey data (e.g. Economic and Agricultural Censuses)?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Was the lack of capacity in information technology systems:

Only answer this question if the following conditions are met:
Answer was 'Lack of capacity in information technology systems ' at question '116 [estbac15]' (Which of the following factors made it hard for your office to get access to Federal establishment survey data (e.g. Economic and Agricultural Censuses)?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Was the lack of staff or contractors with specific technical expertise needed to link data:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff or contractors with specific technical expertise needed to link data ' at question '116 [estbac15]' (Which of the following factors made it hard for your office to get access to Federal establishment survey data (e.g. Economic and Agricultural Censuses)?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the concerns about keeping the linked data secure and confidential:

Only answer this question if the following conditions are met:
Answer was 'Concerns about keeping the linked data secure and confidential ' at question '116 [estbac15]' (Which of the following factors made it hard for your office to get access to Federal establishment survey data (e.g. Economic and Agricultural Censuses)?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[ ]Which of the following factors made it hard for your office to get access to Federal tax data?

Only answer this question if the following conditions are met:
Answer was 'Federal tax data' at question '80 [notlink14]' (Using Data for Statistical, Evaluation, Research, or Policy Analysis Purposes Which of the following kinds of data has your office, or its representatives, considered using for statistical, evaluation, research, or policy analysis purposes but did not because it was too hard to get access to the specific dataset you needed?)

Please choose **all** that apply:

☐ Lack of staff, policies, and procedures to establish data sharing agreements

☐ Statutes prohibiting data sharing

☐ Regulations or policies that make it difficult to link data

☐ Lack of capacity in information technology systems

☐ Lack of staff or contractors with specific technical expertise needed to link data

☐ Concerns about keeping the linked data secure and confidential

☐ Other: _____

[ ]

Was the lack of staff, policies, and procedures to establish data sharing agreements:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff, policies, and procedures to establish data sharing agreements ' at question '123 [taxac15]' (Which of the following factors made it hard for your office to get access to Federal tax data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the statutes prohibiting data sharing:

Only answer this question if the following conditions are met:
Answer was 'Statutes prohibiting data sharing ' at question '123 [taxac15]' (Which of the following factors made it hard for your office to get access to Federal tax data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the regulations or policies that make it difficult to link data:

Only answer this question if the following conditions are met:
Answer was 'Regulations or policies that make it difficult to link data ' at question '123 [taxac15]' (Which of the following factors made it hard for your office to get access to Federal tax data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Was the lack of capacity in information technology systems:

Only answer this question if the following conditions are met:
Answer was 'Lack of capacity in information technology systems ' at question '123 [taxac15]' (Which of the following factors made it hard for your office to get access to Federal tax data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Was the lack of staff or contractors with specific technical expertise needed to link data:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff or contractors with specific technical expertise needed to link data ' at question '123 [taxac15]' (Which of the following factors made it hard for your office to get access to Federal tax data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the concerns about keeping the linked data secure and confidential:

Only answer this question if the following conditions are met:
Answer was 'Concerns about keeping the linked data secure and confidential ' at question '123 [taxac15]' (Which of the following factors made it hard for your office to get access to Federal tax data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]Which of the following factors made it hard for your office to get access to Federal social security data?

Only answer this question if the following conditions are met:
Answer was 'Federal social security data' at question '80 [notlink14]' (Using Data for Statistical, Evaluation, Research, or Policy Analysis Purposes Which of the following kinds of data has your office, or its representatives, considered using for statistical, evaluation, research, or policy analysis purposes but did not because it was too hard to get access to the specific dataset you needed?)

Please choose **all** that apply:

☐ Lack of staff, policies, and procedures to establish data sharing agreements

☐ Statutes prohibiting data sharing

☐ Regulations or policies that make it difficult to link data

☐ Lack of capacity in information technology systems

☐ Lack of staff or contractors with specific technical expertise needed to link data

☐ Concerns about keeping the linked data secure and confidential

☐ Other: _____

[]

Was the lack of staff, policies, and procedures to establish data sharing agreements:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff, policies, and procedures to establish data sharing agreements ' at question '130 [ssac15]' (Which of the following factors made it hard for your office to get access to Federal social security data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the statute sprohibiting data sharing:

Only answer this question if the following conditions are met:
Answer was 'Statutes prohibiting data sharing ' at question '130 [ssac15]' (Which of the following factors made it hard for your office to get access to Federal social security data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the regulations or policies that make it difficult to link data:

Only answer this question if the following conditions are met:
Answer was 'Regulations or policies that make it difficult to link data ' at question '130 [ssac15]' (Which of the following factors made it hard for your office to get access to Federal social security data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Was the lack of capacity in information technology systems:

Only answer this question if the following conditions are met:
Answer was 'Lack of capacity in information technology systems ' at question '130 [ssac15]' (Which of the following factors made it hard for your office to get access to Federal social security data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Was the lack of staff or contractors with specific technical expertise needed to link data:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff or contractors with specific technical expertise needed to link data ' at question '130 [ssac15]' (Which of the following factors made it hard for your office to get access to Federal social security data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the concerns about keeping the linked data secure and confidential:

Only answer this question if the following conditions are met:
Answer was 'Concerns about keeping the linked data secure and confidential ' at question '130 [ssac15]' (Which of the following factors made it hard for your office to get access to Federal social security data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]Which of the following factors made it hard for your office to get access to Human services program data (e.g. SNAP and TANF)?

Only answer this question if the following conditions are met:
Answer was 'Human services program data (e.g., SNAP and TANF)' at question '80 [notlink14]' (Using Data for Statistical, Evaluation, Research, or Policy Analysis Purposes Which of the following kinds of data has your office, or its representatives, considered using for statistical, evaluation, research, or policy analysis purposes but did not because it was too hard to get access to the specific dataset you needed?)

Please choose **all** that apply:

☐ Lack of staff, policies, and procedures to establish data sharing agreements

☐ Statutes prohibiting data sharing

☐ Regulations or policies that make it difficult to link data

☐ Lack of capacity in information technology systems

☐ Lack of staff or contractors with specific technical expertise needed to link data

☐ Concerns about keeping the linked data secure and confidential

☐ Other: [   ]

[]

Was the lack of staff, policies, and procedures to establish data sharing agreements:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff, policies, and procedures to establish data sharing agreements ' at question '137 [hsac15]' (Which of the following factors made it hard for your office to get access to Human services program data (e.g. SNAP and TANF)?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Were the statutes prohibiting data sharing:

Only answer this question if the following conditions are met:
Answer was 'Statutes prohibiting data sharing ' at question '137 [hsac15]' (Which of the following factors made it hard for your office to get access to Human services program data (e.g. SNAP and TANF)?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Were the regulations or policies that make it difficult to link data:

Only answer this question if the following conditions are met:
Answer was 'Regulations or policies that make it difficult to link data ' at question '137 [hsac15]' (Which of the following factors made it hard for your office to get access to Human services program data (e.g. SNAP and TANF)?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Was the lack of capacity in information technology systems:

Only answer this question if the following conditions are met:
Answer was 'Lack of capacity in information technology systems ' at question '137 [hsac15]' (Which of the following factors made it hard for your office to get access to Human services program data (e.g. SNAP and TANF)?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Was the lack of staff or contractors with specific technical expertise needed to link data:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff or contractors with specific technical expertise needed to link data ' at question '137 [hsac15]' (Which of the following factors made it hard for your office to get access to Human services program data (e.g. SNAP and TANF)?)

Please choose **all** that apply:

- ☐ In your office?
- ☐ In another office in your agency?
- ☐ In another agency?
- ☐ At the state or local level?

[]

Were the concerns about keeping the linked data secure and confidential:

Only answer this question if the following conditions are met:
Answer was 'Concerns about keeping the linked data secure and confidential ' at question '137 [hsac15]' (Which of the following factors made it hard for your office to get access to Human services program data (e.g. SNAP and TANF)?)

Please choose **all** that apply:

- ☐ In your office?
- ☐ In another office in your agency?
- ☐ In another agency?
- ☐ At the state or local level?

[]Which of the following factors made it hard for your office to get access to Medicaid/Medicare claims and utilization data?

Only answer this question if the following conditions are met:
Answer was 'Medicaid/Medicare claims and utilization data' at question '80 [notlink14]' (Using Data for Statistical, Evaluation, Research, or Policy Analysis Purposes Which of the following kinds of data has your office, or its representatives, considered using for statistical, evaluation, research, or policy analysis purposes but did not because it was too hard to get access to the specific dataset you needed?)

Please choose **all** that apply:

☐ Lack of staff, policies, and procedures to establish data sharing agreements

☐ Statutes prohibiting data sharing

☐ Regulations or policies that make it difficult to link data

☐ Lack of capacity in information technology systems

☐ Lack of staff or contractors with specific technical expertise needed to link data

☐ Concerns about keeping the linked data secure and confidential

☐ Other: [   ]

[]

Was the lack of staff, policies, and procedures to establish data sharing agreements:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff, policies, and procedures to establish data sharing agreements ' at question '144 [mmac15]' (Which of the following factors made it hard for your office to get access to Medicaid/Medicare claims and utilization data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Were the statutes prohibiting data sharing:

Only answer this question if the following conditions are met:
Answer was 'Statutes prohibiting data sharing ' at question '144 [mmac15]' (Which of the following factors made it hard for your office to get access to Medicaid/Medicare claims and utilization data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Were the regulations or policies that make it difficult to link data:

Only answer this question if the following conditions are met:
Answer was 'Regulations or policies that make it difficult to link data ' at question '144 [mmac15]' (Which of the following factors made it hard for your office to get access to Medicaid/Medicare claims and utilization data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Was the lack of capacity in information technology systems:

Only answer this question if the following conditions are met:
Answer was 'Lack of capacity in information technology systems ' at question '144 [mmac15]' (Which of the following factors made it hard for your office to get access to Medicaid/Medicare claims and utilization data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Was the lack of staff or contractors with specific technical expertise needed to link data:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff or contractors with specific technical expertise needed to link data ' at question '144 [mmac15]' (Which of the following factors made it hard for your office to get access to Medicaid/Medicare claims and utilization data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Were the concerns about keeping the linked data secure and confidential:

Only answer this question if the following conditions are met:
Answer was 'Concerns about keeping the linked data secure and confidential ' at question '144 [mmac15]' (Which of the following factors made it hard for your office to get access to Medicaid/Medicare claims and utilization data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]Which of the following factors made it hard for your office to get access to Military service and veteran benefits records?

Only answer this question if the following conditions are met:
Answer was 'Military service and veteran benefits records' at question '80 [notlink14]' (Using Data for Statistical, Evaluation, Research, or Policy Analysis Purposes Which of the following kinds of data has your office, or its representatives, considered using for statistical, evaluation, research, or policy analysis purposes but did not because it was too hard to get access to the specific dataset you needed?)

Please choose **all** that apply:

☐ Lack of staff, policies, and procedures to establish data sharing agreements

☐ Statutes prohibiting data sharing

☐ Regulations or policies that make it difficult to link data

☐ Lack of capacity in information technology systems

☐ Lack of staff or contractors with specific technical expertise needed to link data

☐ Concerns about keeping the linked data secure and confidential

☐ Other: [   ]

[]

Was the lack of staff, policies, and procedures to establish data sharing agreements:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff, policies, and procedures to establish data sharing agreements ' at question '151 [vetac15]' (Which of the following factors made it hard for your office to get access to Military service and veteran benefits records?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the statutes prohibiting data sharing:

Only answer this question if the following conditions are met:
Answer was 'Statutes prohibiting data sharing ' at question '151 [vetac15]' (Which of the following factors made it hard for your office to get access to Military service and veteran benefits records?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the regulations or policies that make it difficult to link data:

Only answer this question if the following conditions are met:
Answer was 'Regulations or policies that make it difficult to link data ' at question '151 [vetac15]' (Which of the following factors made it hard for your office to get access to Military service and veteran benefits records?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Was the lack of capacity in information technology systems:

Only answer this question if the following conditions are met:
Answer was 'Lack of capacity in information technology systems ' at question '151 [vetac15]' (Which of the following factors made it hard for your office to get access to Military service and veteran benefits records?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Was the lack of staff or contractors with specific technical expertise needed to link data:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff or contractors with specific technical expertise needed to link data ' at question '151 [vetac15]' (Which of the following factors made it hard for your office to get access to Military service and veteran benefits records?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]

Were the concerns about keeping the linked data secure and confidential:

Only answer this question if the following conditions are met:
Answer was 'Concerns about keeping the linked data secure and confidential ' at question '151 [vetac15]' (Which of the following factors made it hard for your office to get access to Military service and veteran benefits records?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

[]Which of the following factors made it hard for your office to get access to State unemployment insurance wage record data?

Only answer this question if the following conditions are met:
Answer was 'State unemployment insurance wage record data' at question '80 [notlink14]' (Using Data for Statistical, Evaluation, Research, or Policy Analysis Purposes Which of the following kinds of data has your office, or its representatives, considered using for statistical, evaluation, research, or policy analysis purposes but did not because it was too hard to get access to the specific dataset you needed?)

Please choose **all** that apply:

☐ Lack of staff, policies, and procedures to establish data sharing agreements

☐ Statutes prohibiting data sharing

☐ Regulations or policies that make it difficult to link data

☐ Lack of capacity in information technology systems

☐ Lack of staff or contractors with specific technical expertise needed to link data

☐ Concerns about keeping the linked data secure and confidential

☐ Other: _____

[]

Was the lack of staff, policies, and procedures to establish data sharing agreements:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff, policies, and procedures to establish data sharing agreements ' at question '158 [wagac15]' (Which of the following factors made it hard for your office to get access to State unemployment insurance wage record data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Were the statutes prohibiting data sharing:

Only answer this question if the following conditions are met:
Answer was 'Statutes prohibiting data sharing ' at question '158 [wagac15]' (Which of the following factors made it hard for your office to get access to State unemployment insurance wage record data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Were the regulations or policies that make it difficult to link data:

Only answer this question if the following conditions are met:
Answer was 'Regulations or policies that make it difficult to link data ' at question '158 [wagac15]' (Which of the following factors made it hard for your office to get access to State unemployment insurance wage record data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Was the lack of capacity in information technology systems:

Only answer this question if the following conditions are met:
Answer was 'Lack of capacity in information technology systems ' at question '158 [wagac15]' (Which of the following factors made it hard for your office to get access to State unemployment insurance wage record data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Was the lack of staff or contractors with specific technical expertise needed to link data:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff or contractors with specific technical expertise needed to link data ' at question '158 [wagac15]' (Which of the following factors made it hard for your office to get access to State unemployment insurance wage record data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Were the concerns about keeping the linked data secure and confidential:

Only answer this question if the following conditions are met:
Answer was 'Concerns about keeping the linked data secure and confidential ' at question '158 [wagac15]' (Which of the following factors made it hard for your office to get access to State unemployment insurance wage record data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]Which of the following factors made it hard for your office to get access to Vital records (birth and death) data?

Only answer this question if the following conditions are met:
Answer was 'Vital records (birth and death) data' at question '80 [notlink14]' (Using Data for Statistical, Evaluation, Research, or Policy Analysis Purposes Which of the following kinds of data has your office, or its representatives, considered using for statistical, evaluation, research, or policy analysis purposes but did not because it was too hard to get access to the specific dataset you needed?)

Please choose **all** that apply:

☐ Lack of staff, policies, and procedures to establish data sharing agreements

☐ Statutes prohibiting data sharing

☐ Regulations or policies that make it difficult to link data

☐ Lack of capacity in information technology systems

☐ Lack of staff or contractors with specific technical expertise needed to link data

☐ Concerns about keeping the linked data secure and confidential

☐ Other: _____

[]

Was the lack of staff, policies, and procedures to establish data sharing agreements:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff, policies, and procedures to establish data sharing agreements ' at question '165 [vitac15]' (Which of the following factors made it hard for your office to get access to Vital records (birth and death) data?)

Please choose **all** that apply:

☐ In your office?

☐ In another office in your agency?

☐ In another agency?

☐ At the state or local level?

[]

Were the statutes prohibiting data sharing:

Only answer this question if the following conditions are met:
Answer was 'Statutes prohibiting data sharing ' at question '165 [vitac15]' (Which of the following factors made it hard for your office to get access to Vital records (birth and death) data?)

Please choose **all** that apply:

- ☐ In your office?
- ☐ In another office in your agency?
- ☐ In another agency?
- ☐ At the state or local level?

[]

Were the regulations or policies that make it difficult to link data:

Only answer this question if the following conditions are met:
Answer was 'Regulations or policies that make it difficult to link data ' at question '165 [vitac15]' (Which of the following factors made it hard for your office to get access to Vital records (birth and death) data?)

Please choose **all** that apply:

- ☐ In your office?
- ☐ In another office in your agency?
- ☐ In another agency?
- ☐ At the state or local level?

[]

Was the lack of capacity in information technology systems:

Only answer this question if the following conditions are met:
Answer was 'Lack of capacity in information technology systems ' at question '165 [vitac15]' (Which of the following factors made it hard for your office to get access to Vital records (birth and death) data?)

Please choose **all** that apply:

- ☐ In your office?
- ☐ In another office in your agency?
- ☐ In another agency?
- ☐ At the state or local level?

[]

Was the lack of staff or contractors with specific technical expertise needed to link data:

Only answer this question if the following conditions are met:
Answer was 'Lack of staff or contractors with specific technical expertise needed to link data ' at question '165 [vitac15]' (Which of the following factors made it hard for your office to get access to Vital records (birth and death) data?)

Please choose **all** that apply:

- ☐ In your office?
- ☐ In another office in your agency?
- ☐ In another agency?
- ☐ At the state or local level?

[]

Were the concerns about keeping the linked data secure and confidential:

Only answer this question if the following conditions are met:
Answer was 'Concerns about keeping the linked data secure and confidential ' at question '165 [vitac15]' (Which of the following factors made it hard for your office to get access to Vital records (birth and death) data?)

Please choose **all** that apply:

- ☐ In your office?
- ☐ In another office in your agency?
- ☐ In another agency?
- ☐ At the state or local level?

[]To what extent is each of the following a barrier to your office's ability to use datafor *statistical, evaluation, research, or policy analysis purposes*?

Only answer this question if the following conditions are met:

-------- Scenario 1 --------

Answer was 'To evaluate a program to understand its implementation or impact on participants ' *or* 'To produce statistics about the economy, society, or environment ' *or* 'To support research on a population, group of entities, policy, or program' *or* 'To conduct analysis of existing policies or programs to assist decision making ' at question '26 [purpose5]' (For which of the following purposes does your office, or its representatives, collect data from individual units?)

-------- or Scenario 2 --------

Answer was 'To produce statistics about the economy, society, or environment ' *or* 'To evaluate a program to understand its implementation or impact on participants ' *or* 'To support research on a population, group of entities, policy, or program' *or* 'To conduct analysis of existing policies or programs to assist decision making ' at question '31 [micropurpose10]' (For which of the following purposes does your office, or its representatives, analyze micro-level data collected by any other Federal office or agency?)

-------- or Scenario 3 --------

Answer was '51 to 90 percent' *or* '11 to 50 percent' *or* '1 to 10 percent' *or* '91 to 100 percent ' at question '23 [SERA46]' (For the remainder of the survey, please note the following additional definitions: My/your agency: the Federal Agency or Department you marked in the first question Another agency: any Federal Agency or Department other than the one you marked in the first question My/your office: the Federal office you marked in the second question   Another office in my/your agency: another Federal office within the Agency or Department you marked in the first question   Representatives: individuals who receive direction from, but are not directly employed by, your office or agency, including contractors, grantees, and those on interagency personnel agreements (IPAs) Approximately what percentage of your office's total annual budget is for statistical, evaluation, research, or policy analysis purposes?   )

Please choose the appropriate response for each item:

	Not a barrier	Minor barrier	Moderate barrier	Major barrier
Lack of ability to hire appropriate staff	○	○	○	○
Lack of ability to execute and manage contracts	○	○	○	○
Inadequate funding	○	○	○	○
Legal limitations	○	○	○	○
Information Technology (IT) systems or requirements	○	○	○	○
Privacy and data security requirements	○	○	○	○
Political processes (e.g., transitions in agency/office leadership, Congressional oversight)	○	○	○	○
Information collection	○	○	○	○

	Not a barrier	Minor barrier	Moderate barrier	Major barrier
requirements (e.g., Paperwork Reduction Act and Institutional Review Boards)				
Other	⊙	⊙	⊙	⊙

> ***Statistical, evaluation, research, or policy analysis purposes***: activities intended to support the production, analysis, and dissemination of information, including the creation and analysis of federal statistics; production or use of evaluation for federally-supported or -directed programs; research on a population, group of entities, policy, or program; or analysis of policies or proposals to inform decision making. These purposes do NOT include program operations (e.g., compliance monitoring, eligibility determinations, enforcement actions).

[]If other, please specify:

Only answer this question if the following conditions are met:
Answer was 'Minor barrier' *or* 'Moderate barrier' *or* 'Major barrier' at question '172 [SERA49]' (To what extent is each of the following a barrier to your office's ability to use data for statistical, evaluation, research, or policy analysis purposes? (Other))

Please write your answer here:

[]Which ONE of the following is the most critical barrier to your office's ability to use data for *statistical, evaluation, research, or policy analysis purposes*?

Only answer this question if the following conditions are met:

-------- Scenario 1 --------

Answer was 'To evaluate a program to understand its implementation or impact on participants ' *or* 'To produce statistics about the economy, society, or environment ' *or* 'To support research on a population, group of entities, policy, or program' *or* 'To conduct analysis of existing policies or programs to assist decision making ' at question '26 [purpose5]' (For which of the following purposes does your office, or its representatives, collect data from individual units?)

-------- or Scenario 2 --------

Answer was 'To produce statistics about the economy, society, or environment ' *or* 'To evaluate a program to understand its implementation or impact on participants ' *or* 'To support research on a population, group of entities, policy, or program' *or* 'To conduct analysis of existing policies or programs to assist decision making ' at question '31 [micropurpose10]' (For which of the following purposes does your office, or its representatives, analyze micro-level data collected by any other Federal office or agency?)

-------- or Scenario 3 --------

Answer was '91 to 100 percent ' *or* '51 to 90 percent' *or* '11 to 50 percent' *or* '1 to 10 percent' at question '23 [SERA46]' (For the remainder of the survey, please note the following additional definitions: My/your agency: the Federal Agency or Department you marked in the first question Another agency: any Federal Agency or Department other than the one you marked in the first question My/your office: the Federal office you marked in the second question   Another office in my/your agency: another Federal office within the Agency or Department you marked in the first question   Representatives: individuals who receive direction from, but are not directly employed by, your office or agency, including contractors, grantees, and those on interagency personnel agreements (IPAs) Approximately what percentage of your office's total annual budget is for statistical, evaluation, research, or policy analysis purposes?)

Please choose **only one** of the following:

○ Lack of ability to hire appropriate staff

○ Lack of ability to execute and manage contracts

○ Inadequate funding

○ Legal limitations

○ Information Technology (IT) systems or requirements

○ Privacy and data security requirements

○ Political processes (e.g., transitions in agency/office leadership, Congressional oversight)

○ Information collection requirements (e.g., Paperwork Reduction Act and Institutional Review Boards)

○ Other [   ]

> *Statistical, evaluation, research, or policy analysis purposes*: activities intended to support the production, analysis, and dissemination of information, including the creation and analysis of federal statistics; production or use of evaluation for federally-supported or -directed programs; research on a population, group of entities, policy, or program; or analysis of policies or proposals to inform decision making. These purposes do NOT include program operations (e.g., compliance monitoring, eligibility determinations, enforcement actions).

[]If applicable, please provide additional information about this most critical barrier.

Only answer this question if the following conditions are met:

-------- Scenario 1 --------

Answer was 'To support research on a population, group of entities, policy, or program' *or* 'To conduct analysis of existing policies or programs to assist decision making ' *or* 'To produce statistics about the economy, society, or environment ' *or* 'To evaluate a program to understand its implementation or impact on participants ' at question '26 [purpose5]' (For which of the following purposes does your office, or its representatives, collect data from individual units?)

-------- or Scenario 2 --------

Answer was 'To produce statistics about the economy, society, or environment ' *or* 'To evaluate a program to understand its implementation or impact on participants ' *or* 'To support research on a population, group of entities, policy, or program' *or* 'To conduct analysis of existing policies or programs to assist decision making ' at question '31 [micropurpose10]' (For which of the following purposes does your office, or its representatives, analyze micro-level data collected by any other Federal office or agency?)

-------- or Scenario 3 --------

Answer was '91 to 100 percent ' *or* '51 to 90 percent' *or* '11 to 50 percent' *or* '1 to 10 percent' at question '23 [SERA46]' (For the remainder of the survey, please note the following additional definitions: My/your agency: the Federal Agency or Department you marked in the first question Another agency: any Federal Agency or Department other than the one you marked in the first question My/your office: the Federal office you marked in the second question   Another office in my/your agency: another Federal office within the Agency or Department you marked in the first question   Representatives: individuals who receive direction from, but are not directly employed by, your office or agency, including contractors, grantees, and those on interagency personnel agreements (IPAs) Approximately what percentage of your office's total annual budget is for statistical, evaluation, research, or policy analysis purposes?   )

Please write your answer here:

[]If applicable, please list up to five *statistical, evaluation, research, or policy analysis activities* your office, or its representatives, have not been able to complete because it was too hard to access the right data.

Only answer this question if the following conditions are met:

-------- Scenario 1 --------

Answer was 'To support research on a population, group of entities, policy, or program' *or* 'To conduct analysis of existing policies or programs to assist decision making ' *or* 'To produce statistics about the economy, society, or environment ' *or* 'To evaluate a program to understand its implementation or impact on participants ' at question '26 [purpose5]' (For which of the following purposes does your office, or its representatives, collect data from individual units?)

-------- or Scenario 2 --------

Answer was 'To evaluate a program to understand its implementation or impact on participants ' *or* 'To produce statistics about the economy, society, or environment ' *or* 'To support research on a population, group of entities, policy, or program' *or* 'To conduct analysis of existing policies or programs to assist decision making ' at question '31 [micropurpose10]' (For which of the following purposes does your office, or its representatives, analyze micro-level data collected by any other Federal office or agency?)

-------- or Scenario 3 --------

Answer was '91 to 100 percent ' *or* '51 to 90 percent' *or* '11 to 50 percent' *or* '1 to 10 percent' at question '23 [SERA46]' (For the remainder of the survey, please note the following additional definitions: My/your agency: the Federal Agency or Department you marked in the first question Another agency: any Federal Agency or Department other than the one you marked in the first question My/your office: the Federal office you marked in the second question   Another office in my/your agency: another Federal office within the Agency or Department you marked in the first question   Representatives: individuals who receive direction from, but are not directly employed by, your office or agency, including contractors, grantees, and those on interagency personnel agreements (IPAs) Approximately what percentage of your office's total annual budget is for statistical, evaluation, research, or policy analysis purposes?   )

Please write your answer here:

Statistical, evaluation, research, or policy analysis purposes: activities intended to support the production, analysis, and dissemination of information, including the creation and analysis of federal statistics; production or use of evaluation for federally-supported or -directed programs; research on a population, group of entities, policy, or program; or analysis of policies or proposals to inform decision making. These purposes do NOT include program operations (e.g., compliance monitoring, eligibility determinations, enforcement actions).

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[]If applicable, please provide an example of a*micro-level data* linkageproject or process in your office that works well.

Only answer this question if the following conditions are met:
Answer was 'Yes, occasionally (not as a regular part of our programs or processes) ' *or* 'Yes, routinely (as a regular part of our programs or processes) ' at question '24 [collect3]' (Collecting Data Does your office, or its representatives, collect data about individual units (e.g., people, businesses, nonprofit organizations, schools) either directly or through an intermediary source (e.g., state or local governments, private entities)?)

Please write your answer here:

Micro-level data: a data file with an entry (record) for each individual unit.

[]If applicable, please provide an example of how your office has used data to build evidence for policy making.

Please write your answer here:

Submit your survey.
Thank you for completing this survey.

Attachment D. Federal Office Reponses to Open-Ended Questions on the CEP Survey of Federal Offices, 2017

Survey response	
Which Federal agency are you responding for?	Social Security Administration Office of Retirement Policy
If applicable, please provide additional information about this most critical barrier.	It is often a time-consuming process to get clearances from multiple agencies to use their data merged with SSA data.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	Our office uses the MINT model (Modeling Income in the Near Term model) to analyze the distributional consequences of proposed Social Security changes. The basis of the model is SIPP data (Census Bureau data) merged with SSA earnings data.

Survey response	
Which Federal agency are you responding for?	Department of Veterans Affairs National Center for Veterans Analysis and Statistics
If applicable, please provide additional information about this most critical barrier.	It is often not the actual law or policy, but a risk adverse application of law or policy.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	Linking Veteran data to IRS data to ascertain the veteran outcomes by looking at income as a proxy.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	We provide a predictive model of the future Veteran population. We collect administrative data from within VA, integrate force projections and separations from DoD to estimate the future Veteran population. This model is used in VA strategic planning and as input to VHA's healthcare enrollee projection model which is issued in health policy and budget formulation.

Survey response	
Which Federal agency are you responding for?	Department of the Interior United States Geological Survey
If applicable, please provide additional information about this most critical barrier.	Funding is often not available for historical data digitization and necessary investments in information technology infrastructure.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	Field records from retiring scientists, historical data on tapes related to earth science, bird banding data, historical topographic maps
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	In the last several years, USGS has been developing a national biodiversity observation network, the USA National Phenology Network (www.usanpn.org), including the production of data products related to biodiversity and environmental variation that can be used for research or natural resource management decision-making. USGS works closely with DOI National Park Service, Fish and Wildlife Service, the USDA Agricultural Research Service, the National Ecological Observatory Network (NEON), and the US Global Change Research Program. Data on national patterns of plant and animal phenology are collected by both professionals and volunteers ("citizen scientists"); data are immediately and freely available, and have been used in a number of publications, and by state/federal land managers. Additionally, The USGS's National Water Use Information Program compiles and publishes the Nation's water-use data. Public access to some of these data is provided via the USGS Water Data for the Nation site. Water use refers to water that is used for specific purposes. Water-use data is collected by area type (State, county, watershed or aquifer) and source such as rivers or groundwater, and category such as public supply or irrigation. Water-use data has been reported every five years since 1950, for years ending in "0" and "5". The USGS works in cooperation with local, State, and Federal agencies as well as academic and private organizations to collect and report total withdrawals.

Survey response	
Which Federal agency are you responding for?	Department of Health and Human Services Substance Abuse and Mental Health Services Administration - Center for Behavioral Health Statistics and Quality
If applicable, please provide additional information about this most critical barrier.	It is hard to fill vacancies and retain appropriate staff due to inefficient HR process and inadequate position grade levels.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	Resource limitations (staffing and contractual) limit ability to support dissemination of new data set, including internal program administrative and evaluation data, as well as outside data sets and more analytic tools.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	We support a Data Portal which enables outside researchers to apply for access to restricted micro-level data which is housed on a secure virtual data enclave (hosted on a physical server). The process is extremely efficient and safe as it includes tri-factor authentication, on-site visits to users, and a rigorous application process. The Data Portal also requires all analysis to be done within the data enclave, and everything must go through a thorough disclosure review (by the appropriate data groups) before being disseminated to the researcher for use outside of the Data Portal. It has been a huge success in supporting research to researchers all over the United States, allowing access from secure locations without the inconvenience of having to travel to an on-site data center. It also is cost efficient, as all monitoring of users and researchers can be done virtually and safely. We are able to support many more researchers without having to hire additional FTEs that would otherwise have to physically be present in an RDC. We have also increased turn-around-time for allowing access to research, and providing disclosure reviews for researchers to complete papers, presentations, doctoral dissertations, and allow for our data to be utilized and analyzed to its fullest capacity. We have made access to our confidential data an easy, however very safe and compliant, and quick process for those that need it to support their research. The Data Portal has also provided easy and safe access to sister federal agencies, where before they needed to travel on site for access. This has enable other various agencies to further their

	research agendas and expedite their own timelines. Our Data Portal and over all Data Archive (SAMHDA) have revolutionized the way that we disseminate data. We now have complete ownership over our data, where it is stored, how it is accessed and the timeline in which it is deployed. We are able to turnaround data and data publications with great speed, and having control over our own systems has also enabled us to respond to requests in a much more timely manner. In working on sub committees (Confidential Data Access Committee and others) we are hopeful that with the support of other agencies, OMB will continue to work on improving the laws surrounding data collection and security - CIPSEA in particular - so that one day we will be able to support researchers using the Data Portal on a cloud environment, which would only help speed and efficiency.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	Both CBHSQ and OPPI SAMHSA components have been asked to participate in this survey. We defer to OPPI to answer this question.

Survey response	
Which Federal agency are you responding for?	Department of Health and Human Services Indian Health Service
If applicable, please provide additional information about this most critical barrier.	IHS is funded at 40% of need. Other government agencies have price scales costed for agencies with deep pockets. We are primarily a health system for impoverished people. Any dollar misspent results in less medical care.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	Misclassification by race adjustment ratios using National Death Index data on a routine basis down to the service unit level Mortality linkage studies for recent years of data due to National Death Index data costs on suicide, chronic disease, injury Identification of which of our patients is a Veteran or has a service connected disability Solid maternal mortality studies Studies of patients transferred to other facilities outside IHS and outcomes
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	IHS medical records are accumulated annually, unduplicated, and put into a Indian registrant file. This is sent annually to the US Census to help them with their counts of American Indians and Alaska Natives. Census performs its linkages as needed.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	Trends in Indian Health and Regional Differences in Indian Health present tables and charts that describe the IHS program and the health status of American Indians and Alaska Natives. Information pertaining to the IHS structure, American Indian and Alaska Native demography, patient care, and community health are included. Current and trend information are presented, and comparisons with other population groups are made, when appropriate. Current ones may be found at https://www.ihs.gov/dps/index.cfm/publications/

Survey response	
Which Federal agency are you responding for?	Department of Defense Army Corps of Engineers
If applicable, please provide additional information about this most critical barrier.	Information on ports is collected by the Department of Homeland Security, but either not at the level of detail that we need it, or it is and they won't provide it to us. Another issue is that individual ports do not want to share data that we could use to do economic analysis on ports, because they are concerned that 1) it would be shared with other ports, who are their competitors; and 2) we might use that data to make budget decisions favoring one ports over another based on its economic competitiveness.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	Harbor Maintenance Trust Fund report to Congress.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	1. Development of the Corps' budget is largely based on project-level data that the Corps of Engineers develops through detailed reports/studies, involving engineering, economic, environmental, and related analysis. 2. We use data on the ability of certain projects/programs to execute funds as one metric we consider in making funding decisions. We have significantly reduced funding for programs that were not capable of executing the funds they had on hand. One example is the Dam Safety Program of the Corps of Engineers - it continues to receive a high priority for funding, but it became apparent that it was not executing those funds. We used the clear signal we saw in that data to overcome internal resistance to continuing to fund a "safety" program at an overly robust level.

Survey response	
Which Federal agency are you responding for?	Department of Agriculture Food and Nutrition Service
If applicable, please provide additional information about this most critical barrier.	The requirements of the Paperwork Reduction Act were primarily designed to limit the administrative burden on entities being regulated by the government, but are applied as a government-wide gatekeeper on the nature of statistical rigor of all data collections, including one-time sampled collections. The burdens of the centralized PRA clearance process, exacerbated by the limited capacity of OIRA to address this comprehensive government-wide workload, has dramatically increased the cost and delay in getting critical information to program administrators. While the government has an interest in ensuring that data collected is valid for its purpose, high-quality, and non-duplicative, all but the most potentially-burdensome collections could be appropriately managed at the agency or sub-agency level.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	We continue to struggle with assessing the eligibility and participation of active-duty military households in our programs because of a lack of data on the circumstances of those families. Military authorities have been reluctant to share that information for reasons that are not entirely clear.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	Several studies have linked administrative and survey data to assess the effect of SNAP on food insecurity and have found a strong association between program participation and reductions in food insecurity. Census data has also been used to demonstrate the positive effects of SNAP in reducing poverty. Other studies have used both administrative and survey data to show how food insecurity affects learning and childhood development, both in the summer and during the school year. This evidence helped inform the Summer Electronic Benefits Transfer for Children (SEBTC) demonstration, which provided benefits on an electronic debit card to children eligible for free and reduced-price school meals to purchase food during the summer months when away from school.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	Effectively reaching those most in need is a critical concern of the Supplemental Nutrition Assistance Program (SNAP). The Food and Nutrition Service (FNS) uses administrative data – specifically, a sample of certification data drawn annually to measure

	payment accuracy (the Quality Control, or QC, data) to examine in depth the participants it serves. The latest annual SNAP Characteristics report developed with these data shows that well over half of the benefits (58%) go to households at or below 50% of the poverty line and almost all of the benefits (93%) are going to households at or below 100% of the poverty line. Rigorous evaluations of the Summer Electronic Benefits Transfer for Children (SEBTC) demonstration, demonstration found that SEBTC reduced very-low food security among children by one-third and improved participants' diets. The study used random assignment into treatment and control groups, combined with EBT transaction data, dietary recall surveys, household interviews, and the Food Security Supplement Survey to collect data from a sample of over 50,000 children.

Survey response	
Which Federal agency are you responding for?	Department of Energy Office of Environment, Health, Safety and Security
If applicable, please provide additional information about this most critical barrier.	OMB has placed FTE limits on our organization which prevents us from hiring necessary staff.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	Historical work records are transmitted to researchers for development of Energy Employee Occupational Injury Compensation claim development for adjudication by the Department of Labor. Data is provided in a secure electronic process.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	Numbers and types of injury claims are used to evaluate current health and safety policy to determine if changes are necessary.

Survey response	
Which Federal agency are you responding for?	Department of Justice Office of Justice Programs - Office of Violence Against Women
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	Our office uses grantee-reported data to understand where barriers exist to serving victims of domestic and sexual violence, and to identify gaps in services. We also fund research and evaluation to assess the effectiveness and impact of interventions funded through our grant programs.

Survey response	
Which Federal agency are you responding for?	Department of Health and Human Services Centers for Disease Control and Prevention - National Center for Immunization and Respiratory Diseases
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	Any integration of data from the education sector due to FERPA
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	

Survey response	
Which Federal agency are you responding for?	Department of Veterans Affairs Veterans Health Administration
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	We transmit record-level clinical data to CMS to calculate hospital outcomes for public reporting on Hospital Compare
If applicable, please provide an example of how your office has used data to build evidence for policy making.	We have initiated a new patient survey, based, in part, on the Consumer Assessment of Health Providers and Systems (CAHPS) Clinician-Group Survey to assess the experience of Veterans who are receiving care from community (i.e., non-VA) providers under authorities established in the Veterans Choice Act of 2014. That data is identifying performance gaps that are being addressed via new processes and policies to improve Veteran experience with non-VA care.

Survey response	
Which Federal agency are you responding for?	Department of Labor Office of the Assistant Secretary for Policy - Chief Evaluation Office
If applicable, please provide additional information about this most critical barrier.	Recommend expanding access to NDNH data for research, evaluation, and statistical purposes while also providing strong privacy and confidentiality protections. Gaining access to NDNH data is very challenging. the PRA process also is very cumbersome and time consuming.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	

Survey response	
Which Federal agency are you responding for?	Department of the Treasury Internal Revenue Service - Statistics of Income Division
If applicable, please provide additional information about this most critical barrier.	Funding affects our ability to hire adequate staff to support outside researchers, develop new products on our own, explore new data sources, etc. We have been under a hiring freeze for several years and have not hired from outside our agency in at least 4. Existing staff have been frozen at relatively low journeyman pay levels due to a freeze on promotions. All this limits our ability to bring in staff with new analytical skills to help the organization embrace newer technologies and processes, including tools associated with Big Data. Budgets have been flat while expenses have increased steadily. We have had some success leveraging outside academics to help innovate. Just a few new hires would make a significant difference in our program.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	We are extremely good at linking across tax years and tax forms to create longitudinal (panel) files of tax filing populations. We successfully link millions of information documents (provided by third parties such as SSA, banks, investment companies, businesses, etc.) to tax returns. Using such linkages we produce annual tabulations of county and state-migration, support research projects including 2 looking at intergenerational income mobility, and produce income and pension fund tabulations.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	A few examples include: Chetty that has shown the importance of teacher quality in improving childhood outcomes Chetty, Manoli and others have provided valuable evidence that is being used to improve uptake of refundable credits by affected populations Mahon and Zwick have examined the effect of business stimulus programs on small businesses behavior during the recession; Hoxby has examined the uptake and estimated the effects of education tax credits Yagan has examined potential causes of individual's unwilling to relocate in the face of job loss during the recession

Survey response	
Which Federal agency are you responding for?	Department of Commerce Bureau of Economic Analysis
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	The linkage between BEA multinational firm data and Census database for foreign trade and econ census
If applicable, please provide an example of how your office has used data to build evidence for policy making.	

Survey response	
Which Federal agency are you responding for?	Department of Homeland Security Office of Policy - Office of Immigration Statistics
If applicable, please provide additional information about this most critical barrier.	Most of our resources go to meet basic reporting requirements, leaving limited time/personnel for research.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	We have developed a tool that aggregates several different DHS and DOJ data systems to analyze how aliens move through the immigration enforcement system. The tool identifies bottlenecks and shows how different populations are affected by bottlenecks and experience different types of outcomes. the tool offers insight for policy development and resource allocation.

Survey response	
Which Federal agency are you responding for?	Department of Labor Bureau of Labor Statistics
If applicable, please provide additional information about this most critical barrier.	Statutes surrounding the IRS data currently prohibit Census from sharing business data that originates from IRS filings with BEA and BLS. As a result, Census, BEA, and BLS cannot achieve the full benefits of data sharing. Specifically, Title 26, Section 6103(j) needs edited to allow for BLS access to the data to fully achieve the data sharing benefits that the Confidential Information Protection and Statistical Efficiency Act sought to achieve.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	Expanded estimates of wages by geography and industry. Expanded lay-off statistics. Firm-level statistical estimates.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	Linkages with BLS business register
If applicable, please provide an example of how your office has used data to build evidence for policy making.	

Survey response	
Which Federal agency are you responding for?	Social Security Administration Office of Research, Evaluation, and Statistics
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	Our micro data linkages with the Census Bureau's Survey of Income and Program Participation and Current Population Survey work very well. Also our micro data linkage with the University of Michigan's Health and Retirement Study is very successful.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	ORES has successfully used data to build microsimulation modelling capabilities for analyzing Social Security and SSI reform options and the distributional characteristics of Social Security beneficiaries and SSI recipients. ORES also uses data to study the pension environment, mortality patterns, the income distribution (poverty), and labor force participation, all of which contribute to the evidence base for making Social Security policy decisions. Finally, ORES supports numerous research projects through the Retirement Research Consortium and Disability Research Consortium, all of which are intended to contribute to the evidence base on retirement and disability policy.

Survey response	
Which Federal agency are you responding for?	Department of Health and Human Services Office of Research, Evaluation, and Statistics
If applicable, please provide additional information about this most critical barrier.	We are often asked to enter into user agreements to obtain the data which our OGC does not allow. Often in working with tribal entities we need to get tribal IRB or tribal board approval which takes forever and is often denied.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	meta-analysis using individual-level data
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	

Survey response	
Which Federal agency are you responding for?	National Science Foundation National Center for Science and Engineering Statistic
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	About every two years we and our contractor engage with SSA using SSA data and a micro data file we provide to identify doctoral-level scientists and engineers who are working in the US. We do not directly access SSA data, but it is SSA staff who do the match using full SSN and confirm those individuals who had wages during the period of interest and were therefore resident and working in the US. This is helpful, particularly for estimates of the inflow and outflow of those doctoral recipients who were not US citizens at the time of their degree.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	The above described data on "stay rates" are included in a biennial report to Congress on the state of US science and engineering. It serves as evidence of the contribution of immigrants to the nation's S&E workforce.

Survey response	
Which Federal agency are you responding for?	Department of Health and Human Services Centers for Disease Control and Prevention - Office of the Associate Director for Policy
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	The 6/18 and Health Impact in 5 years initiative both represent a process by which my office looked at the best available data for interventions that have evidence of health outcome improvement and cost effectiveness. Highlighting these interventions and their data makes it possible for policy makers to rapidly identify the best available evidence on these topics. We also used Market Scan and CMS data to generate papers on topics such as team based care and how team based care can lead to improve health outcomes and cost effectiveness.

Survey response	
Which Federal agency are you responding for?	Department of the Treasury United States Mint
If applicable, please provide additional information about this most critical barrier.	Although it may be helpful as a manufacturing organization to collect data on customers, their privacy concerns remain a key focus for us.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	Customer data from the internet sales
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	

Survey response	
Which Federal agency are you responding for?	Department of Agriculture Economic Research Service
If applicable, please provide additional information about this most critical barrier.	Also, lack of planning for linking by program agencies is a factor. Data do not contain identifiers to facilitate linking and and other critical data needed for high quality analysis; also SORNs often do not indicate as a routine use that data may be shared/linked/used for statistical research and evaluation purposes
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	1. Due to lack of access to USDA's Risk Management Agency Micro-level Admin data, we are unable to examine choices that farmers make between different types of insurance plans as a function of policy relevant variables such as the premium subsidy rate. 2. Do FSA programs ease credit constraints for farmers? 3. Crop insurance and Cash Receipts 4. Farm-labor studies 5. Rural manufacturing resilience 6. Impact of patents 7. Statistical analysis for SNAP and WIC would be strengthened by fuller assessment of who the programs reach, and who, among eligibles, are not reached. Identification of non-participating eligibles would be facilitated by improved access to Federal tax data (for annual income data), State UI wage records (for intra-year changes in incomes, which are volatile among the working poor), and vital records (for WIC's infant population). Moreover, access to these income- and age-eligibility data supports development of statistical control groups that, in the absence of experimental designs, provide evidence on how program participation affects program outcomes. Linking NHANES to administrative data for SNAP and WIC (and to Census survey data) would provide results on how the programs improve health and nutrition outcomes. Understanding how well the program serves important subpopulations, such as veterans or the elderly, would be improved by access to data on military service and social security data. Understanding how SNAP interacts with other programs would be promoted by easier access to data on benefits from UI, TANF and other human services programs, as well as veterans benefits.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	1. The U.S. Census Bureau, USDA's Food and Nutrition Service, which administers the Nation's food and nutrition assistance programs, and ERS formed a strategic partnership for conducting research on USDA food assistance programs. ERS and FNS seek to inform

	policymakers and others on: who participates in the programs, how program participation affects the lives of those individuals, and who does not participate and why. The Census Bureau's interests are primarily to improve their surveys, the 2020 Census, and data-linkage processes. The joint project is acquiring USDA administrative data from States and linking those data to Census Bureau surveys. Three ERS reports from the project to date have provided evidence on sub-state detail on program access, program targeting of benefits by income level, and measurement of monthly vs annual participation rates. 2. Linking Admin data to Survey data: manufacturing resilience, CRP experiments, conservation compliance
If applicable, please provide an example of how your office has used data to build evidence for policy making.	The U.S. Census Bureau, USDA's Food and Nutrition Service, which administers the Nation's food and nutrition assistance programs, and ERS formed a strategic partnership for conducting research on USDA food assistance programs using administrative data and linked data sources, obtaining results that are not obtainable using any one data source alone. The project has multiple goals. Each partner agency receives benefits, but different types of benefits support their respective missions. As USDA agencies, ERS and FNS seek to inform policymakers and others on: who participates in the programs, how program participation affects the lives of those individuals, and who does not participate and why. In contrast, the Census Bureau's interests are primarily to improve their surveys, which collect data on food assistance program participation, the 2020 Census, and data-linkage processes. The joint project is acquiring USDA administrative data from States. The project is linking those data to Census Bureau surveys, leveraging the strengths of each data source. Three ERS reports from the project to date have provided evidence on sub-state detail on program access, program targeting of benefits by income level, and measurement of monthly vs annual participation rates. FNS has a mission-driven interest in understanding how effectively SNAP is reaching the people it is designed to serve. The data required to produce detailed estimates within a State have previously not been available, and these can be helpful as States decide where to focus expenditures. The project linked SNAP data for Texas to the ACS and developed a new methodology for obtaining detailed geographic and demographic results.

	The access rate measures the share of eligible people who receive SNAP benefits. For Texas as a whole, among the people who are estimated to be eligible in the ACS, a check of the SNAP records shows that 63% of them were participants. Access rates ranges from about 37 to 77% across Texas congressional districts. The Texas report also provided access rates for selected demographic subpopulations. Incomes vary across households that participate in SNAP. What percentage of SNAP households have the "very lowest" income? Linked data help address underreporting, income variability, and complex household structures (such as multi-family households and unrelated individuals). Using linked data for New York, the study found that SNAP is targeted more towards those with low annual incomes than is detected using ACS data alone. Comparing the ACS-only measure and the measure based on linked-data found that the share of SNAP households with annual income less than 50 percent of poverty increases from about 18 to 27 percent between the two measures, while the share in poverty increases from about 51 to 61 percent. The third study address the question of who participates in SNAP. People can be eligible for SNAP, and participate in the program, in a given month. ERS called that approach a "monthly" timeframe. Alternatively, in an "annual" timeframe, people can be eligible for SNAP at some time during the year. These are two different statistical populations. Federal surveys often ask: "At some time in the last year did you receive SNAP benefits?" If an annual timeframe is used for estimating eligibles, it is important to use an annual timeframe to measure participation. New York SNAP records were used to count the number of people who received SNAP for one or more months in the annual timeframe. While the monthly participation rate for New York was about 80%, the annual rate was about 75%. The monthly slice-of-time tends to capture more people who are long-term eligibles, and they tend to participate at higher rates, boosting the monthly rate above the annual rate. Access to micro-level data and linkages across datasets enabled ERS to provide statistical analysis on three key issues of interest to policymakers involving participation in the country's largest nutrition assistance program.

Survey response	
Which Federal agency are you responding for?	Department of Health and Human Services Administration for Community Living
If applicable, please provide additional information about this most critical barrier.	The Information Collection Request process under PRA has posed a significant barrier to our office's ability to use data. Challenges include: • Process length: The length of time the process takes can exceed 12 months. The delay alone is problematic but also has a negative impact on our ability to award and manage contracts to conduct evaluations, research or measure program performance. Research and evaluation are generally conducted through independent, research firms under contract. The uncertainty and length of the ICR process leads to contract modifications, extensions and increased costs. The delays also impact the ability to collect baseline data for new programs and initiatives and for those with short life-cycles. • Challenges testing data collection instruments. Testing of data collection tools (e.g. reliability and validity) if conducted with more the 9 individuals must go through a full ICR process. This includes public comment periods for study questions and approaches that may be altered based on the testing results. While public comment on questions prior to testing may provide some useful feedback a 60 day and 30 day comment period for questions and approach that is subject to change is not an efficient approach. The process does not accommodate a rapid cycle of question testing, revision and testing. An evaluation or research study will likely undergo two ICR approvals; one for testing and the second for implementation which further delays the research. • Use and collection of Social Security Numbers (SSN) to facilitate linking across data sets: Social security numbers are the best, most reliable method for linking across data sets. Data security and privacy are always a priority when collecting PII and our office uses respected research firms with extensive experience collecting and protecting PII. We have experienced extended delays during the ICR process when data collection includes SSN for data linking purposes. The extended delays related to SSN collection have not resulted in changes or improvements in our security protocols, data collection methods or question content.
If applicable, please list up to five statistical, evaluation, research, or	Medicaid data would greatly enhance our ability to evaluate program outcomes but the timeliness,

policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	completeness, quality, and cost have led to our decision that it is not cost effective to pursue access at this time. Micro-level data from our program grantees (states and sub-state entities) has been too difficult to access. Multiple challenges impact our ability to access grantee data including: variability in grantee capacity to collect and store micro-level data; lack of data standards; and ICR/PRA requirements.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	Our office linked outcome evaluation data with Medicare beneficiary data to enable measurement of program health outcomes. Under the same project our office linked USDA, FNS Store Tracker and Redemption Systems (STARS) data to measure food access. These data linkages greatly enhance the multi-component, comprehensive process and outcome evaluation.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	Our office has succeeded in working with CMS to obtain Medicare records for program evaluation purposes. Medicare beneficiary files have been used to identify a matched comparison group as well as link data for outcome analysis. The outcome evaluation is ongoing and the results will be used to inform policy and program decision-making. We have combined program process data with outcome and cost findings from CMS's Evaluation of Community-based Wellness and Prevention Programs. Results were shared with Congress and are used by program and policy decision-makers regarding evidence-based health promotion and disease prevention interventions.

Survey response	
Which Federal agency are you responding for?	Department of Health and Human Services Agency for Healthcare Research and Quality
If applicable, please provide additional information about this most critical barrier.	Many Agencies have restrictive requirements or restrictive interpretations of confidentiality laws and regulations that make it difficult to access valuable supplemental data.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	There are a number of instances in which imputation or editing of survey data collected by or for our Agency could have been improved with access to detailed administrative data collected by another Agency.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	We have directly linked Medicare and Medicaid administrative data to our survey data to support methodological research that led to improvements in the data subsequently used in statistical and policy related analyses.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	Research using AHRQ's Medical Expenditure Panel Survey was used to inform decisions regarding the reauthorization of the Children's Health Insurance Program (CHIP) in 2015. Applied research from our office based upon MEPS data led to the formulation and adoption of two CHIP policy recommendations by the Medicaid and CHIP Payment Advisory Commission (MACPAC): • Eliminate CHIP premiums for children in families under 150 percent of the Federal Poverty Line (FPL). • Reauthorize CHIP in 2015. These recommendations were accepted by Congress.

Survey response	
Which Federal agency are you responding for?	Department of Health and Human Services Centers for Disease Control and Prevention - National Center for HIV/AIDS, Viral Hepatitis, Sexually Transmitted Disease, and Tuberculosis Prevention
If applicable, please provide additional information about this most critical barrier.	Too many information collection requests are delayed at OMB for reasons beyond the control of CDC programs.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	not applicable
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	not applicable
If applicable, please provide an example of how your office has used data to build evidence for policy making.	CDC used U.S. national HIV surveillance data and the results of systematic reviews of the literature on randomized, controlled trials to recommend the use of pre-exposure prophylaxis to prevent HIV infection in HIV negative persons at high risk of infection

Survey response	
Which Federal agency are you responding for?	Department of Education National Center for Education Statistics
If applicable, please provide additional information about this most critical barrier.	My agency continues to receive funding for additional data collections, but does not receive support for additional staff to conduct those studies.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	My agency routinely links sample survey data to student application and financial aid data to increase our nation's understanding of the use and outcomes of student financial aid. My agency is collaborating with the Veteran's Benefit Administration to identify Veterans among the students enrolled in sampled institutions for our postsecondary student aid studies; this will allow us to oversample Veterans in those studies, thus providing our agency and the Veteran's Administration with valuable data on the use of Veteran's benefits and the educational outcomes of Veterans.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	Our agency's postsecondary student aid studies provide the information base that is used to inform policy decisions regarding student financial aid. Our agency's National Assessment of Educational Progress is the longest standing nationally representative assessment of student performance. It serves as a benchmark for numerous other state specific assessments. Our agency's international assessments provide the information base needed to evaluate the academic and real life performance of our students and adults relative to the rest of the world.

Survey response	
Which Federal agency are you responding for?	Nuclear Regulatory Commission
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	The U.S. Nuclear Regulatory Commission (NRC) would like to provide the following supporting information to describe the context for the agency's response to the question above on collecting data. The NRC's mission is to license and regulate the Nation's civilian use of radioactive materials to protect public health and safety, promote the common defense and security, and protect the environment. In implementing this mission, NRC requires its regulated entities, including licensees, certificate holders, vendors, and applicants, to report information to the agency in accordance with specific regulatory requirements. Examples include qualifications for obtaining licenses, notifications of incidents, operating power levels, and biannual financial reports. NRC then evaluates the reported information and takes necessary regulatory actions in accordance with its policies and procedures. Should the U.S. Commission on Evidence-Based Policymaking be interested in such data, the NRC can work with the Commission to provide further detail.

Survey response	
Which Federal agency are you responding for?	Department of Justice Office of Justice Programs - Bureau of Justice Statistics
If applicable, please provide additional information about this most critical barrier.	The different statutes among the different agencies make it difficult to come to an agreement.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	

Survey response	
Which Federal agency are you responding for?	Small Business Administration Office of Performance Management
If applicable, please provide additional information about this most critical barrier.	Less than 1% of the budget is set aside for evaluation work
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	Getting PII to link clients across program within the SBA Obtaining the counterfactual (adequate comparison group)
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	Strategic Plan Development Annual Performance Plan Congressional Budget Justification Quarterly Reports Strategic Reviews

Survey response	
Which Federal agency are you responding for?	Department of Justice Office of Justice Programs - Office of Juvenile Justice and Delinquency Prevention
If applicable, please provide additional information about this most critical barrier.	OJJDP has not received an appropriation for Part D of the JJDPA for over a decade. Consequently, all research and data collection must be funded through statutory authorities which allow us to use up to 10 percent of programmatic funding for research. This funding is extremely limited.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	Most of the research, evaluation, and data OJJDP implements informs the office's policies and practice. For example, our Census of Juveniles in Residential Placement and Juvenile Residential Facility Census provide information about youth in juvenile residential facilities and the conditions of confinement including accesses to services. These data inform the office's efforts to enact juvenile justice reforms.

Survey response	
Which Federal agency are you responding for?	National Aeronautics and Space Administration
If applicable, please provide additional information about this most critical barrier.	The NASA Office of Education (OE) is currently undertaking a pilot effort to survey participants in its science, technology, engineering, and math (STEM) education programs. This effort will help NASA better gauge the outcomes of its education programs, and will enable data-driven decisions about how best to use our resources. Since we are still in the pilot stages of this effort, we cannot address all of the questions included in the survey above. Our intent is to eventually collect outcome data across all of OE's lines of business. OE receives funding of approximately $100 million each year, which is only around 0.5 percent of NASA's total budget. (Note that while NASA Education spends between 1-10 percent of its budget on evaluations, for the Agency as a whole, the spending is only a fraction of a percent.) There are resource trade-offs involved in spending our limited budget on studies to evaluate the effectiveness of our STEM education programs, rather than on the programs themselves.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	The NASA Office of Education (OE) performs a critical role in advancing the Nation's science, technology, engineering, and mathematics (STEM) education and workforce pipeline by working collaboratively with other agencies to engage students, teachers, and faculty in NASA's missions and unique assets. In recent years, OE has worked on both expanding its existing efforts and developing new capabilities to objectively determine the impact of its programs. Following are some of OE's recent and ongoing efforts to build strong, outcome-oriented performance measures: •Introducing a new annual performance indicator in FY 2017 that tracks evaluations conducted by grantees and

| | cooperative agreement awardees on educational activities; •Providing technical assistance to Center education offices and selected grantees and cooperative agreement awardees to ensure that educational investments are appropriately evaluated using common metrics and findings used to improve programmatic outcomes; and •Obtaining a generic clearance for methodological testing. This clearance is the first of its kind for NASA and allows OE to significantly enhance the quality of the its data collection instruments and overall data management through interdisciplinary scientific research, utilizing best practices in educational, psychological, and statistical measurement. |

Survey response	
Which Federal agency are you responding for?	Small Business Administration Office of Advocacy
If applicable, please provide additional information about this most critical barrier.	Office would like to create new data on regulatory burden and other detailed data on small business but research budget is inadequate for the scale required for this type of data collection.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	TAS, Employee Benefits and student debt as it related to entrepreneurism.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	In accordance with our statutory mission of examining the role of small business in the American economy and recommending measures for creating an environment in which all businesses have the opportunity to compete effectively, the Office of Advocacy actively supports the use of evidence based policy making. As part of achieving this mission, the Office generates original data which is used for research products and by other regulatory agencies in the crafting of policy. For one specific example, the Office of Advocacy sponsors the Census Bureau's annual Statistics of U.S. Businesses (SUSB) survey. SUSB provides comprehensive data on U.S. employer businesses by geography, industry, receipt size, employment size, and legal form of organization. Advocacy uses the SUSB data for a multitude of research projects such as our annual State Profiles. The State Profiles provide, among other information, the number of small businesses and their employment in each state by industry. Due to their comprehensive nature, the State Profiles have proven to be a key source of small business information for Congress, State policy makers and small business associations. The SUSB is also an important source of business data for regulatory agencies in the rulemaking process. For almost all rules affecting business, Agencies use the SUSB data in policy development, Regulatory Impact Analyses and for compliance with the Regulatory Flexibility Act. Data from sources such

	as the SUSB can directly alter policy decisions. For example, Advocacy engaged with DOJ Civil Rights division on a rule regarding the use of captioning and audio description devices in movie theatres. After further analysis of data from the SUSB, DOJ found their rule may not be economically feasible for many smaller movie theatres, and added an exemption for theatres using analog projection. Doing so allowed DOJ to achieve their policy objective at a smaller cost to society. Advocacy continues to use the best available data from SUSB and other sources to provide actionable research to policy makers and bolster regulatory agency's development of evidence based policy.

Survey response	
Which Federal agency are you responding for?	Department of the Interior National Park Service
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	We have field and program staff review draft guidance and comment on it.

Survey response	
Which Federal agency are you responding for?	Department of Commerce Bureau of the Census
If applicable, please provide additional information about this most critical barrier.	We have great authority to access administrative data, yet there are some files which would greatly advance our mission that we either cannot access or have great difficulty accessing. The NDNH and SNAP/WIC are examples of these two categories.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	Full use of SNAP data to improve the accuracy of the 2020 Decennial Census Use of the NDNH to reduce the cost of the 2020 Decennial Census Full implementation of CIPSEA to share our business register with BLS and vice versa
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	The work conducted in the FSRDCs is a great success.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	The American Community Provides information that can be used by policy makers. We do not make policy.

Survey response	
Which Federal agency are you responding for?	Environmental Protection Agency Office of Land and Emergency Management
If applicable, please provide additional information about this most critical barrier.	Often we come across questions that would require surveys and we don't even seriously contemplate requesting a ICR due to the time commitment.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	survey of voluntary partnerships;
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	we have used evaluations to make changes to a program.

Survey response	
Which Federal agency are you responding for?	Corporation for National and Community Service
If applicable, please provide additional information about this most critical barrier.	Our office and the projects we develop and implement are relatively new ways of doing business for this agency and it has tested every policy, practice and norm the agency has around data and its use.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	Linking our member data to UI and New Hires data Conducting longitudinal research using state administrative data on a sample of students in an RCT study we conducted (didn't secure the needed consents initially)
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	We have linked our national service member data to the SSA disability data to determine whether or not a year of service can facilitate transitions to the workforce for individuals with disabilities. We have linked our national service member data to the National student clearinghouse to track education outcomes for members over time. We are trying to link member data to the LEHD survey data to track employment outcomes for members over time. We have a Social Innovation Fund Pay For Success Administrative Data Pilot underway where grantees facilitate access to various administrative data sets for PFS grantees to help build evidence in a more cost-effective way. Our office looks forward to receiving guidance from the CEP so that we can better understand the following: 1. Successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments for Federal evidence-based policymaking 2. Based on identified best practices and existing examples, the factors that should be considered in reasonably ensuring the security and privacy of administrative and survey data? Our office would also love to learn what the CEP has discovered through their fact-finding regarding: What are the main policy questions legislators and the executive branch seek to answer through administrative data? What are the most frequent, the most urgent, the most important? What are the challenges, opportunities, issues, barriers to

	addressing them through administrative data? What are the questions that CBO, CRS, GAO get asked the most, what information do they most need? What new legislation is needed and what can you do with the existing legislation?

Survey response	
Which Federal agency are you responding for?	Department of Education Office of Special Education and Rehabilitative Services
If applicable, please provide additional information about this most critical barrier.	Having sufficient resources to hire, put IT systems in place and making statistics, research a priority
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	N/A
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	In our competitive grant programs, applicants for funding consideration must demonstrate how they intend to address evidence in their application and in their project should they be funded.

Survey response	
Which Federal agency are you responding for?	Social Security Administration Office of Data Exchange and Policy Publications
If applicable, please provide additional information about this most critical barrier.	The most critical barrier to data exchange is legal and disclosure limitations. SSA often does not have legal authority to disclose requested data to other agencies or researchers (universities or research organization) for the requested purpose. Statutes and systems of records notices (routine uses) generally (with certain exceptions) limit our authority to disclose SSA data to research uses that are relevant to the administration of the Social Security Act.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	My office is responsible for data exchange policy and operations at the Social Security Administration (SSA). We provide enterprise-wide, executive-level leadership, oversight, and support for SSA's data exchange programs. We work closely with SSA components (operational, research, legal, security, legislative) and external partners (federal/state agencies, private entities, universities and other research organizations) to develop and implement data exchange agreements for both programmatic and research purposes. On the research side, we seek to obtain data needed by SSA components to conduct research and statistical activities and to provide SSA data to others for research and statistical purposes.

Survey response	
Which Federal agency are you responding for?	Department of the Interior United States Fish and Wildlife Service
If applicable, please provide additional information about this most critical barrier.	The approval processes for IT transformation in our bureau are subjected to a team approach, and people on the team often have other funding priorities.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	Hiring systems to assist managers.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	We use demographic and skills information for placement. We use workforce information to determine skills gaps. We use workforce information to project funding needs.

Survey response	
Which Federal agency are you responding for?	Department of Transportation Federal Motor Carrier Safety Administration
If applicable, please provide additional information about this most critical barrier.	The challenge is that there are numerous legacy IT systems that have valuable information and those systems were not set up to support comprehensive data analyses and queries. And we have difficulties getting information out of these legacy Federal and State systems. As we develop the IT systems to support new programs we apply the lessons learned to ensure those systems are structured in such a way that we can perform a wide range of analyses.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	1. Determining the number of active commercial driver's license (CDL) holders in the U.S.; 2. Determining the number of new CDL holders entering the trucking and motorcoach industry each year; 3. Determining the number of Class A versus Class B CDL holders for #1 and #2 above; 4. Determining the average amount of behind the wheel training that CDL applicants receive when they attend the established training schools. This information was needed to help with the analyses to support my agency's entry-level driver training rulemaking - a statutorily mandated rulemaking. We completed the rulemaking through the negotiated rulemaking process so we were able to achieve a consensus among stakeholders about the content of the rule, but we were not able to come up with solid information from our own data or the data the State driver licensing agencies maintain.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	An example of a micro-level data project that has worked well for my office is our new National Registry of Certified Medical Examiners Program. Through this program we established minimum training and testing requirements for all State-licensed healthcare providers that perform the DOT medical exam for interstate truck and bus drivers. Each of the more than 52,000 examiners must submit monthly reports to the agency identifying each person who is examined and the results of the examination (e.g., pass or fail, and the length of the medical certification (with a maximum length of 2 years). The system has enabled us to determine the number of active truck and bus drivers and provided information on the percentage of drivers with health issues that preclude the issuance of a 2-year medical card. The system has also provided alarming

	information about the number of drivers who were medically disqualified. We can also conduct analyses to identify medical examiners who conduct an unusually large number of examinations and compare the performance of the various types of healthcare providers, as well as geographic variations by examiners and State of registration of the drivers.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	One of the more recent examples involved policy making concerning the operation of 9-to-15 passenger vehicles in interstate commerce. The agency was faced with a statutory mandate to impose safety regulations on 9-to-15 passenger vehicles operated for direct compensation in interstate commerce, but we were given discretion to focus on a subset that we determine pose the greatest risk. To assess the risks, my agency reviewed data from the National Highway Traffic Safety Administration's Fatality Analysis Reporting Systems (FARS). FARS data was of sufficient detail to enable us to identify the number of fatal crashes involving these small passenger-carrying vehicles, the number of crashes that happened while the vehicle was actually transporting between 9 and 15 individuals, the location of the crash (State and zip code), the state of registration for the vehicle and the state of licensure of the driver along with the zip code for the driver's residence. Using certain assumptions (e.g., Federal Highway Administration survey results on the average distance individuals commute to work), we were able to make the argument that operations that involved distances of more than 75 air-miles represent the greatest safety risk. We subsequently decided to move forward with the rulemaking focused on 9-to-15 passenger operations traveling more than 75 air-miles to address the safety challenge while minimizing to the greatest extent the regulatory burden on short-distance operations of these vehicles. Although this regulatory approach appeared to satisfy most stakeholders, certain parties lobbied Congress to enact legislation several years later to force the agency to impose the rules on all the 9-to-15 passenger vehicles operated for direct compensation, irrespective of the data analysis and evidence.

Survey response	
Which Federal agency are you responding for?	Department of State Evaluation and Aid Effectiveness Branch, Office of US Foreign Assistance Resources
If applicable, please provide additional information about this most critical barrier.	We would use data to analyze and allocate budget funds. So many are already earmarked or are political initiatives that very little latitude for analysis is left.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	N/A
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	We contracted for an evaluation of the Managing for Results process that F uses, which contains steps for managing, planning, budgeting and learning. Evaluators looked Department wide at the processes executed during the program cycle, and determined gaps and where streamlining was needed. F has used the recommendations to change processes, develop capacity building where needed, and restructure communication to the Department at large.

Survey response	
Which Federal agency are you responding for?	Department of Health and Human Services Office of Minority Health
If applicable, please provide additional information about this most critical barrier.	Office is understaffed, thus the time and attention necessary for analysis suffers,
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	

Survey response	
Which Federal agency are you responding for?	Department of Health and Human Services Centers for Medicare and Medicaid Services - Office of Enterprise Data and Analytics
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	CMS creates administrative Medicare claims data through the operation of the Medicare fee-for-service program. OEDA has used this data to develop public use files that present information on Medicare billing practices at the provider-level. For example, data released on skilled nursing facilities includes information on whether facilities are providing just enough therapy minutes to qualify for a higher payment (number of therapy minutes is 10 minutes or fewer above the payment threshold). This data can be used to identify facilities that are outliers in their billing practices or analyzed to determine if a policy change is needed to address this activity.

Survey response	
Which Federal agency are you responding for?	Department of Energy Energy Information Administration
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	Oil Export Policy: During 2014 and 2015 both Congress and the Administration used EIA data on domestic oil production, oil imports, and refinery inputs to assess the implications relaxing restrictions on exports of domestically-produced crude oil. Using both its data and modeling capabilities, EIA provided data and analytic reports that showed how different policy choices might affect gasoline and crude oil prices, the level of domestic crude oil production, domestic refiners, and trade in petroleum products. EIA's residential Energy Consumption Survey (RECS) is used by several DOE offices and other government agencies. A few examples are: • the U.S. Department of Health and Human Services, Administration for Children and Families (HHS/ACF) to support evaluations of the LIHEAP program, which distributes energy assistance to more than 8 million low-income households annually to defray home heating and cooling costs. • The Department of Energy, Office of Energy Efficiency and Renewable Energy (EERE) uses to support the Appliances and Commercial Equipment Standards Program to determine the adequacy of the payback period for consumer of efficiency improvements. • U.S. Bureau of Labor Statistics (BLS) uses RECS data microdata file in the preparation of the Consumer Price Index (CPI). In particular, RECS microdata are the principal source for estimating utility costs for renters whose utility costs are included in their rent, which represents 20 percent of the renter sample used in the CPI. As a result, BLS does not have to field

| | an additional survey to account for these utility costs. The CPI is, of course, is the principal indicator of the U.S. for understanding changes in cost living. |

Survey response	
Which Federal agency are you responding for?	Department of Housing and Urban Development Policy Development and Research
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	We complete our activities. However, it takes way too long to find champions and executive support in other agencies, and the process to access some of the key data sources is way too bureaucratic. We/our representatives link to ACS, AHS, NDNH, NHIS/NHANES, IRS, FAFSA, VA, etc.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	We/our representatives link to ACS, AHS, NDNH, NHIS/NHANES, IRS, FAFSA, VA, etc. Some of our most successful data linkage projects have been with organizations with a RDCs already in place.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	The Family Options demonstration tested 4 policy options for assisting homeless families, using random assignment of over 2000 families in a dozen sites ranging from Boston to Honolulu: Housing Choice Vouchers, Project-Based Transitional Housing, Rapid Rehousing, and Usual Care (usually paid from non-Federal sources). Vouchers had substantial quantifiable benefits relative to the other interventions, and Rapid Rehousing had the lowest quantifiable cost to society. From the perspective of ending family homelessness in the US, Project-Based Transitional Housing appears to have very little to offer, and the Office of Community Planning and Development at HUD has issued guidance tending to reduce the use of PBTH with Federal funds. HUD annually allocates between $1 and $2 billion a year for the administration of Housing Choice Vouchers, but the allocation system had never been based on evidence, and the line item could not be justified to appropriators in the absence of evidence. The HCV Administrative Cost Study produced a finely calibrated allocation formula based on a time and motion study at 60 high-performing PHAs throughout the US. The Office of Public and Indian Housing at HUD has used the study to move the HCV program to a new administrative fee system. HUD currently is running large-scale randomized experiments to determine: A. The efficacy of Housing Counseling for prospective first-time homebuyers B. The effects of the Family Self-Sufficiency program, especially in

	increasing employment and earnings among HCV families C. The effects of Rent Reform in the voucher program, especially on employment and termination of assistance HUD is also conducting paired comparison evaluations: 1. Rental Assistance Demonstration, in which 24 public housing projects undergoing conversion to a private-owner assisted model are compared with 48 similar projects not undergoing conversion 2. Small Area Fair Market Rents, examining the experience of 5 PHAs selected by lottery from a cluster of similar PHAs, where voucher subsidies are set at the zip code level rather than the metropolitan level to encourage deconcentration.

Survey response	
Which Federal agency are you responding for?	Department of Health and Human Services National Institutes of Health – NIH Office of Science Policy
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	1. Economic analyses of substance use disorder treatment; long term outcomes of addiction treatment. 2. accurate analysis of the greater research landscape, such as international research or biomedical industry research 3. Assessing the degree of NIH's contributions to FDA new drug approvals in a comprehensive way. This work has been hampered by lack of open-source, standardized FDA data on the research evidence cited in FDA new drug applications, including the specific clinical trials considered in the application, as well as the limitations of search and export capabilities within FDA's publicly accessible databases (e.g., Drugs@FDA). 4. Linking data on NIH-funded research to health interventions to healthcare utilization data. This is a complex undertaking that would require linking high-quality structured data from NIH and several other Operating Divisions of HHS. While not the most limiting factor, the cost of access to CMS utilization data within their research data center is an added barrier.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	1. Portfolio analysis informed expert panels on current funding and research gaps. Challenge competition for Audacious Goals identified stakeholder priorities for initiative planning. 2. Using NSDUH, MTF, and CDC Wonder data to present the scope of substance use disorder and overdose in the US 3. Administrative data was used to make a policy/program decision and create the Trailblazer R21 Program, a new research grant program focused on early career investigators that makes use of the Exploratory/Developmental R21 grant mechanism. This program emphasizes that no preliminary data is needed in grant applications and gives priority to early career investigators. Anecdotal information, which was later confirmed through administrative data analysis, indicated that high quality applications were not being funded, with reviewers commenting that they wanted preliminary data;

thus senior investigators were beating out early career investigators as competition for funding, in general, increased. R21 grants were not being used for the purpose that they were meant to be, and instead were being used to fund more traditional research. As a result of this analysis, a portion of R21 funds was set aside for the new Trailblazer R21 program. 4. Additionally, the NIH Office of Science Policy compiled several examples of NIH program evaluations and other analyses performed which utilized administrative and other statistical data: Assessing Research Training and Workforce Needs/Outcomes • Race, Ethnicity, and NIH research awards. Ginther et al. Science 333(6045):1015-9 2011. An analysis of NIH grant funding and peer review outcomes that finds several disparities in the process related to investigators' race and/or ethnicity. Although proposals with strong priority scores were equally likely to be funded regardless of race, the authors find that Asians are 4 percentage points and black or African-American applicants are 13 percentage points less likely to receive NIH investigator-initiated research funding compared with whites. The group conducted a follow up study investigating the intersection of gender and race/ethnicity, Gender, Race/Ethnicity, and National Institutes of Health R01 Research Awards: Is There Evidence of a Double Bind for Women of Color? Ginther et al. Acad. Med. 91(8):1098-107 2016. The study found that white women PhDs and MDs were as likely as white men to receive an R01 award, and that compared with white women, Asian and black women PhDs and black women MDs were significantly less likely to receive funding. • Biomedical Workforce Working Group Report. NIH Advisory Committee to the Director, 2012. A working group of the NIH Advisory Committee to the Director was tasked with developing a model for a sustainable and diverse U.S. biomedical research workforce that could inform decisions about training the optimal number of people for the appropriate types of positions to advance science and promote health. • Outcome Evaluation of the NCI Career Development (K) Awards Program. Discovery Logic, 2012. An evaluation of the outcomes of a set of career development awards for the National Cancer Institute. • Evaluation: National Institutes of Health Individual Mentored Career Development Awards Program. Discovery Logic, 2011. An evaluation of outcomes from a particular set of individual mentored awards sponsored by NIH's Office of Extramural Research. Assessing Research

Program Outcomes and Scientific Productivity • Predicting Productivity Returns on Investment: Thirty Years of Peer Review, Grant Funding, and Publication of Highly Cited Papers at the National Heart, Lung, and Blood Institute. Lauer et al. Circulation Research 117(3) 2015 An analysis of whether peer review percentile rankings predict grant productivity, as measured through publications and citations, based on 6873 cardiovascular R01 grants funded by the National Heart Lung and Blood Institute in 1980-2011. The authors find a modest association, but poor discrimination, and a variety of mixed results. • Association of percentile ranking with citation impact and productivity in a large cohort of de novo NIMH-funded R01 grants. Doyle et al. Molecular Psychiatry 20(9) 2015. This study analyzed the citation impact and productivity for 1755 de novo investigator-initiated R01 grants funded for at least 2 years by National Institute of Mental Health between 2000 and 2009. The authors found no association between grant percentile ranking and subsequent productivity and citation impact, even after accounting for subject categories, years of publication, duration and amounts of funding, as well as a number of investigator-specific measures. • Research funding. Big names or big ideas: do peer-review panels select the best science proposals? Li et al. Science 348(6233):434-8 2015. This paper examines the success of peer-review panels in predicting the future quality of proposed research. The authors construct new data to track publication, citation, and patenting outcomes associated with more than 130,000 research project (R01) grants funded by the U.S. National Institutes of Health from 1980 to 2008. The authors find that better peer-review scores are consistently associated with better research outcomes and that this relationship persists even when we include detailed controls for an investigator's publication history, grant history, institutional affiliations, career stage, and degree types. • Percentile Ranking and Citation Impact of a Large Cohort of National Heart, Lung, and Blood Institute–Funded Cardiovascular R01 Grants. Danthi et al. Circulation Research 114:600-606 2014. This study conducted an observational analysis of percentile rankings and bibliometric outcomes for a contemporary set of funded NHLBI cardiovascular R01 grants. The study identified 1492 investigator-initiated de novo R01 grant applications that were funded between 2001 and 2008 and followed their progress for linked publications and citations to those publications. • An Outcome Evaluation of the National

Institutes of Health (NIH) Director's Pioneer Award (NDPA) Program, FY 2004–2006 Institute for Defense Analyses -Science and Technology Policy Institute, 2013. Sponsored by the NIH Division of Program Coordination, Planning, and Strategic Initiatives, this outcome evaluation assessed a targeted high-risk, high-reward research program, based on comparing NIH Pioneer Award recipients with recipients of more standard NIH R01 research grants as well as awardees of the Howard Hughes Medical Institute (HHMI). The evaluation addresses several questions: To what extent does the research supported by the program produce unusually high impact, and to what extent are the research approaches used by the grantees highly innovative? The evaluation also addressed two secondary questions: To what extent is the Pioneers' research interdisciplinary, and to what extent are the Pioneers collaborative? • Automated Research Impact Assessment: a new bibliometrics approach. Drew et al. Scientometrics 106(3) 2016. The National Institute of Environmental Health Sciences (NIEHS) has developed a new method to quantify the impact of funded research on the scientific and broader communities. In this article they describe a new bibliometric analysis method, the Automated Research Impact Assessment (ARIA). ARIA taps into a resource that has only rarely been used for bibliometric analyses: references cited in "important" research artifacts, such as policies, regulations, clinical guidelines, and expert panel reports. The approach includes new statistics that science managers can use to benchmark contributions to research by funding source. • Greatest 'HITS': A new tool for tracking impacts at the National Institute of Environmental Health Sciences. Drew et al. Research Evaluation 22(5) 2013. This article presents the High Impacts Tracking System (HITS), a new approach to documenting research impacts that is in development at the National Institute of Environmental Health Sciences (NIEHS). HITS is designed to help identify scientific advances in the NIEHS research portfolio as they emerge, and provide a robust data structure to capture those advances. The authors have downloaded previously un-searchable data from the central NIH grants database and developed a robust coding schema to help track research products (going beyond publication counts to the content of publications) as well as research impacts. They describe the coding schema and key system features as well as several development challenges, including data integration,

	development of a final data structure from three separate ontologies, and ways to develop consensus about codes among program staff. • Toward the assessment of scientific and public health impacts of the National Institute of Environmental Health Sciences Extramural Asthma Research Program Using Available Data. Liebow et al. Environ. Health Perspectives. July 2009. The National Institute of Environmental Health Sciences (NIEHS) Division of Extramural Research and Training developed a framework to measure the scientific and health impacts of its extramural asthma research to improve the scientific basis for reducing the health effects of asthma. They then apply the framework to characterize the NIEHS asthma portfolio's impact in terms of publications, clinical applications of findings, community interventions, and technology developments. • Scientific and Public Health Impacts of the NIEHS Extramural Asthma Research Program - Insights from Primary Data. Orians et al. Res Eval. 2009 Dec;18(5):375-385. NIEHS is the third largest source of asthma related research grant funding within the NIH between 1975-2005. Research results are often published in clinically-focused journals and these results are more likely to have an impact on clinical practice. While links to numerical public health outcomes are not discussed, this paper does link NIEHS funding to key breakthroughs related to asthma susceptibility and symptoms, showing NIEHS' role in publications, clinical trials, and the adoption and dissemination of particular asthma interventions.

Survey response	
Which Federal agency are you responding for?	National Science Foundation Office of Integrative Activities
If applicable, please provide additional information about this most critical barrier.	The lack of standard procedures or guidelines for sharing data across Federal agencies that fund research makes efforts to link and share data difficult or inefficient.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	Linking NSF awards data with patent data from USPTO allows NSF to identify links between investments in basic research and patents, which are useful in determining the potential impact of research investments on technology and the economy.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	Text analyses of NSF awards have revealed patterns about how NSF's second merit review criterion — Broader Impacts — is currently addressed by Principal Investigators (PIs) in proposals submitted to NSF and by reviewers in their reviews. The findings from these patterns will be used to design policies and provide guidance to PIs and reviewers on how to better address broader impacts of the proposed research. Analyses of proposals to the INCLUDES program that were funded and declined will allow program officers to revise solicitations to better align proposal with program objectives.

Survey response	
Which Federal agency are you responding for?	Department of Labor Office of Workers' Compensation Programs
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	OWCP uses data analysis to support ongoing operations, evaluation, program integrity and accountability, and analysis for policy and decision-making. The majority of OWCP's data sets are "confidential data" (per the survey definitions) which contain PII about claimants as well as, in some cases, personal medical information related to their claims. The "individual unit" (per the survey definition) for most OWCP data sets is the claimant. For some OWCP programs, intermediate source data is provided by another agency, such as the Social Security Administration data to confirm employment and earnings, and to support offset requirements. Data analysis for ongoing operations include compilation and statistical analysis for recurring (monthly and quarterly) operational reviews as assessment of progress and results related to OWCP's five-year strategic plan. In FY 2016, OWCP completed development of the OWCP Unified Reporting System (OURS) to which the four programs push selected data on a weekly basis. OURS compiles the data and provides standardized reports available to managers and executives for quarterly reviews as well as on-demand performance analysis. OWCP has conducted a number of analyses using confidential data for decisions about proposed policies. The approach for these analyses varied depending on the policy issue, including examining claims for patterns across claimants or healthcare provider populations, in home health care usage, in wage loss compensation or

	medical benefit payments, and claims processing across OWCP offices. OWCP is currently conducting a statistical staffing analysis, using intermediate source (DOL Human Resource Center) data. This analysis will be used as input for human capital planning in the next OWCP strategic plan

Survey response	
Which Federal agency are you responding for?	Department of Health and Human Services National Center for Health Statistics
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	IRS Data ... recently SSA data, data collected by the Census and economic data
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	Our National Death Index linkage system ... our linkage of our surveys with the NDI and CMS data and our linkage with HUD data
If applicable, please provide an example of how your office has used data to build evidence for policy making.	We do not use data to build evidence for policy making ... we collect and disseminate data and analysis that can be used by others for policy making ... our data can inform policy but we do not enter into that process directly.

Survey response	
Which Federal agency are you responding for?	Department of Health and Human Services Centers for Disease Control and Prevention - National Institute for Occupational Safety and Health
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	NIOSH conducts research that is used in policy making by state and federal agencies

Survey response	
Which Federal agency are you responding for?	Department of Health and Human Services Centers for Disease Control and Prevention
If applicable, please provide additional information about this most critical barrier.	Procuring or licensing data, whether federal or commercial, is expensive. The procurement costs are high, and the costs for staff time to learn about and use acquired sources is also high.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	

Survey response	
Which Federal agency are you responding for?	Department of Commerce Office of Performance Evaluation and Risk Management
If applicable, please provide additional information about this most critical barrier.	Department of Commerce has negligible funding for program evaluation. The best most recent evaluation was a very low cost collaboration between the Census Bureau and the International Trade Administration. A similar collaboration between Census and the Minority Business Development Administration was blocked by the General Council because assisted business were not notified that their information would be used for evaluation. The Grants Manual was modified and they are now notified in the FFO and grant terms.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	Evaluation of the Impact of the Minority Business Development Administration.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	Open data website using Socrata application
If applicable, please provide an example of how your office has used data to build evidence for policy making.	We were instrumental in the International Trade Administration (ITA) collaboration with the Census Center for Economic Studies (CES). ITA gave CES data on businesses they assisted. Census used Census survey data to create a comparison group and the exports of the treated and untreated were compared. The DOC Performance staff also collaborated on the still to be released "Building Smarter Data for Evaluating Business Assistance Programs." This document recommends best practices in collecting data at the initiation of assistance to facilitate using statistical; data to assess impacts. The paper is a collaboration among several agencies. It is in final form and is in clearance for release.

Survey response	
Which Federal agency are you responding for?	Department of Health and Human Services Administration for Children and Families - Office of Child Support Enforcement
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	We match our wage data on individuals with other agencies in order for them to avoid erroneous costs and reduce overpayments.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	

Survey response	
Which Federal agency are you responding for?	Department of Health and Human Services Administration for Children and Families - Office of Head Start
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	I am using this space to explain the difficulty I had in completing this survey. The Office of Head Start (OHS) directly funds over 1,600 grantees to operate Head Start, Early Head Start and Early Head Start - Child Care Partnerships. The annual budget is approximately 9 billion dollars. The Head Start Act, as amended, requires the Secretary to reserve no more than 20 million dollars to fund research, annually. The Office of Program, Research and Evaluation, which resides in our Agency - the Administration for Children and Families, is responsible for research projects for the OHS and the expenditure of the 20 million dollars annually. I do not know, if they were asked to complete this survey; however, the questions may have been more applicable to their work than that of the OHS, which is overwhelmingly focused on program operations and oversight. Because OHS is a federal to locally funded program, the data we collect on individual grantees is generally related to day to day operations and grant making. Although our national funded enrollment is nearly a billion children, we do not collect child or family level data. That data resides in the grantee files and OHS recently promulgated news regulations to safeguard against unauthorized sharing or use of PII. Annually each grantee must complete a Program Information Report (PIR), which is available to the public, and does provide grantee aggregate data, which we do use in identifying trends and progress across

| | states and regions and the PIR data is also used by independent researchers. Our major focus is to ensure whatever we collect is not collected by another federal agency and if another federal agency or state agency has data that we can leverage to do our job better than we want to be able to access that data readily. Clearly, there have been many challenges in these areas and dedicating a sufficient amount of our own resources in this area is a part of the challenge. |

Survey response	
Which Federal agency are you responding for?	Millennium Challenge Corporation
If applicable, please provide additional information about this most critical barrier.	MCC, and particularly its General Counsel, are seriously concerned about the limited legal assurance we can provide to partner countries, IRBs and survey respondents regarding FOIA requests for micro-level data that may be indirectly identifiable. For the purposes of scientific integrity and advancement, we value the ability of independent, responsible researchers to be able to replicate, re-analyze, or test new analytic hypotheses using our evaluation data. But uncertainty surrounding FOIA exemption rulings limits MCC's ability to ensure respondents and their governments that potentially identifiable micro-data shall only be used for statistical purposes.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	MCC is unable to archive and make available restricted access versions of individual and establishment tax payer confidential interview data. On two occasions, IRBs have cited FOIA risks in refusing to allow MCC's independent evaluators to submit analytically useful micro-data to MCC for archival and restricted access dissemination.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	Public water and electric power utilities have worked with MCC hired evaluators to identify lists of households eligible for subsidized connections to utilities. These have worked successfully in Tanzania (water and power), El Salvador (power), Mozambique (water), and Jordan (water).
If applicable, please provide an example of how your office has used data to build evidence for policy making.	MCC's sectoral reviews of evaluations in agriculture and transportation have contributed to substantial changes in the ex-ante evidence requirements for MCC investments in those sectors. Additional sector-specific review work is currently underway in other sectors as well.

Survey response	
Which Federal agency are you responding for?	Department of Education National Center for Special Education Research
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	It is very difficult to find out what happens with students with disabilities after they transition from high school. Are they able to find jobs that provide an adequate income, and do they stay in those jobs over time? How do students with disabilities fare in postsecondary schools? Do students with disabilities receive SSI, and if so, are there certain transition experiences that make it less likely for them to rely on this program? Using data to follow students with disabilities over time would help improve programs and policies aimed at students with disabilities in high school.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	The increased demand for accountability in education focused on improved student academic performance has led to many questions about the most accurate method for capturing individual student progress, particularly for students with disabilities. Although there is a substantial amount of existing research on the characteristics of students with disabilities and assessment of their abilities and skills for purposes of classification and intervention, far less is known about the natural developmental progress in achievement for students with disabilities. The National Center for Special Education Research funded an initiative to study academic growth trajectories of students with disabilities and develop and test practical and relevant methods of accurately measuring academic growth for students with disabilities for use in accountability systems. The ultimate objective of the Center is to develop assessment methods that schools can use to (1) accurately assess the academic progress of students with disabilities and (2) improve the quality of education provided to students with disabilities, leading to improved student outcomes. Data from three States are used in this work.

Survey response	
Which Federal agency are you responding for?	Department of Labor Employment and Training Administration
If applicable, please provide additional information about this most critical barrier.	
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	We are in process of implementing common performance and reporting data for grantees, across Federally funding programs, where data submitted to the Federal level does not contain confidential information, but for which one unit (or individual) can be identified in multiple programs. Still significant work ahead.
If applicable, please provide an example of how your office has used data to build evidence for policy making.	Conduct pilots and evaluations, build capacity of grantees to conduct their own research and evaluation, use of performance accountability measures, use of data analytics, etc. This information is used in policy development, as part of the development of budget requests, to identify strong performing grantees to help identify promising practices, to inform our operating plan, etc.

Survey response	
Which Federal agency are you responding for?	General Services Administration
If applicable, please provide additional information about this most critical barrier.	Finding Agency point person to coordinate on data sharing agreements, and put in substantial leg work to troubleshoot and execute and get senior level support is very challenging.
If applicable, please list up to five statistical, evaluation, research, or policy analysis activities your office, or its representatives, have not been able to complete because it was too hard to access the right data.	We have not been able to look at program impact on ultimate health, wellbeing, employment, income, etc outcomes, but rather been restricted to intermediary operational outcomes that the lead Agency office owns and manages.
If applicable, please provide an example of a micro-level data linkage project or process in your office that works well.	
If applicable, please provide an example of how your office has used data to build evidence for policy making.	The Federal government has incredibly rich data sources that, if used carefully and appropriately, can help answer many pressing questions regarding program impact, program efficiency, and help build needed evidence bases. Unfortunately, our ability to answer these questions is largely restricted to agencies, offices and teams who have knowledge, bandwidth, patience and willingness to tackle complex data sharing agreements and protocols. Further, many agencies may want to understand their programs impact on health, income, employment, or educational outcomes that are collected outside their agencies. The difficulty in tackling data sharing largely means that evaluation outcomes, specifically which the GSA Office of Evaluation Sciences, conducts are restricted to intermediary outcomes.

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Appendix F: CEP Public Meeting Materials and Presentations

Between July 2016 and March 2017, the Commission convened seven public meetings, with a total of 49 invited witnesses.

Appendix F includes each of the witnesses' presentations or written statements.

July 22, 2016 Meeting

Commission on Evidence-Based Policymaking

Statement

July 22, 2016   Contact: adrm.commission.liaison.team@census.gov

Joint Statement from Chair Katharine G. Abraham and Co-Chair Ron Haskins on the Commencement of the Commission on Evidence-based Policymaking

The Commission on Evidence-Based Policymaking begins its work in the midst of an unprecedented movement toward evidence-based policymaking. This movement has been growing for more than a decade at the federal and state levels, and reflects a continued desire from the American public and policymakers that credible information be available to inform decisions about government programs and activities. Congress and the President created this bipartisan Commission to provide the nation with guidance on ways to further expand our approaches to evidence-building in government. We recognize that we have been given an enormous opportunity to help the country move towards better and more effective government in the coming decades, and look forward to developing a bipartisan strategy to ensure that evidence increasingly informs the important decisions that affect the lives of Americans.

###

7/22/2016

Census-FNS-ERS
Next-Generation Data Platform
for USDA food assistance program research

United States Department of Agriculture

Mary E. Bohman, Ph.D.
Administrator

Evidence-Based Policymaking Commission
July 22, 2015

Economic Research Service

Census-FNS-ERS Project Goals

- **ERS and FNS**: to inform policymakers, program managers, and the public on:
  - who participates in USDA food assistance programs
  - how program participation affects the lives of those individuals
  - and who does not participate and why
- **Census**: to inform decisions on surveys, the 2020 Census, and data-linkage processes

Economic Research Service

7/22/2016

Census-FNS-ERS Project Activities

- Acquiring USDA administrative data from States

    --data are collected and reside at the State-level

- Linking administrative data to Census surveys

    --linking leverages the strengths of each data source

- Conducting analysis

    --gain results unobtainable by either one separately

USDA Economic Research Service

Strengths and Limitations of Data Sources

State SNAP records

- **Strengths**
  - ➤ complete—all participants
  - ➤ reliable detail on SNAP duration and benefits each month
  - ➤ "available"
- **Limitations**
  - ➤ exclude non-participants
  - ➤ include only set of variables needed to operate program
  - ➤ omit data on food security, health, other outcomes

Survey data

- **Strengths**
  - ➤ include participants and non-participants
  - ➤ include a rich set of socio-economic data
  - ➤ include outcomes
- **Limitations**
  - ➤ households underreport SNAP participation and benefits
  - ➤ may lack any information on SNAP duration and benefits

USDA Economic Research Service

7/22/2016

Report 1. SNAP Access Rate

Supplemental Nutrition Assistance Program (SNAP) Access at the State and County Levels
Evidence From Texas SNAP Administrative Records and the American Community Survey

Constance Newman
Erik Scherpf
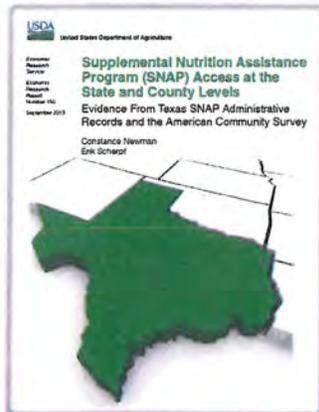
- **Issue: Who does SNAP reach—and not reach—at the sub-State level?**
- Linking SNAP data and American Community Survey gives detailed geographic and demographic results
- Access rate = share of people estimated to be eligible who receive SNAP benefits

USDA Economic Research Service

SNAP Access Rates: Geographic
(2009 ACS linked to 2008-09 SNAP data)

- Texas: 63%
- Among congressional districts: 37% to 77%
- Among 25 "large" counties: 46% to 78%

SNAP Access by Texas Congressional Districts, 2008-2009
- 36.8% – 55.8%
- 55.9% – 59.8%
- 59.9% – 70.4%
- 70.5% – 76.9%

USDA Economic Research Service

7/22/2016

Report 2. SNAP Targeting

USDA United States Department of Agriculture

Economic Research Service

Improving the Assessment of SNAP Targeting Using Administrative Records

Erik Scherpf, Constance Newman, and Mark Prell

May 2015
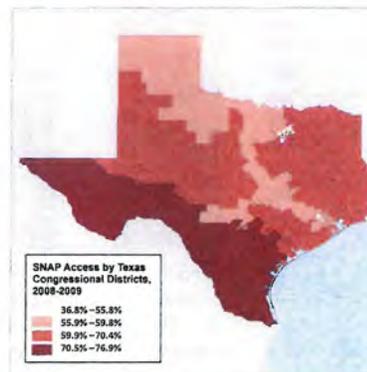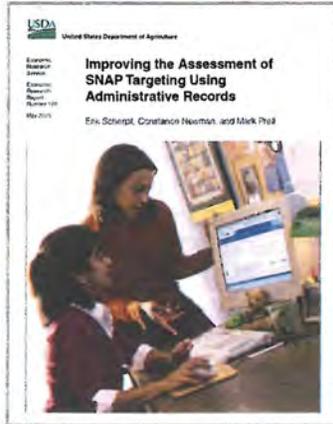
- Issue: What percentage of SNAP households have the "very lowest" income?
- Data linking provides official record of SNAP participation and data on annual income.

USDA **Economic Research Service**

Distribution of Income Relative to Poverty, SNAP "Households"

2008 through 2012 ACS 1-year data, New York State respondents

Percent

	ACS household and ACS SNAP participation	Constructed SNAP unit and administrative SNAP participation
20.8		
16.1		
12.4		
14.7		
13.7		
11.0		

- 201%+
- 131-200%
- 101-130%
- 51-100%
- < 50%
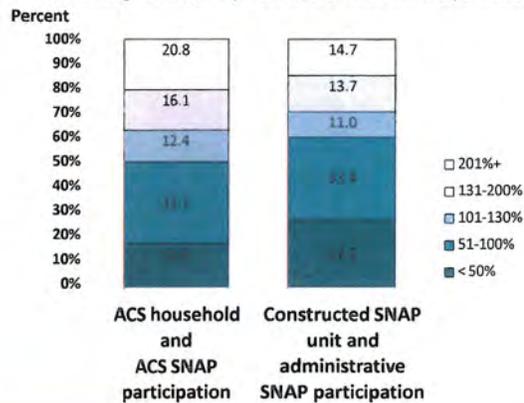
USDA **Economic Research Service**

7/22/2016

Report 3. Annual vs. Monthly Participation Rates

United States Department of Agriculture

Annual and Monthly SNAP Participation Rates

Mark Prell, Constance Newman, and Erik Scherpf
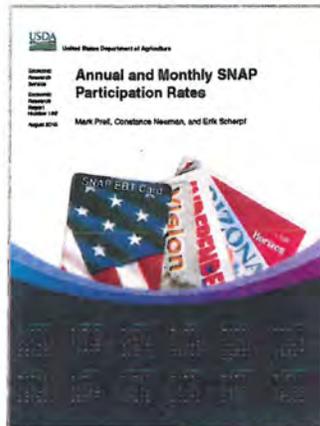
- Issue: Who participates in SNAP among two "statistical" populations of eligibles?

- People can be eligible (and participate) in:

  - Monthly timeframe: a given month (a "moment" in time)

  - Annual timeframe: one or more months of a year ("at some time during the year")

- Federal surveys often ask: "At some time in the last year ...?"

USDA Economic Research Service

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New York Results
(based on New York SNAP data, CPS and SIPP, 2012)

- Monthly Rate > Annual Rate

  - Monthly SNAP participation rate of 80%

  - Annual SNAP participation rate of 75%

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7/22/2016

Three Lessons for Success

- **Partnership**—not all elements of support (programmatic, infrastructure, and analytical) may come from a single agency

- **Mutual benefits**—but often different benefits for the different agencies

- **Valued results**—policymakers, program managers & other stakeholders deem project worthy of support, necessary for resources to support the work

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A Three-Way Partnership

FNS

Census-FNS-ERS Joint Project

Census

ERS
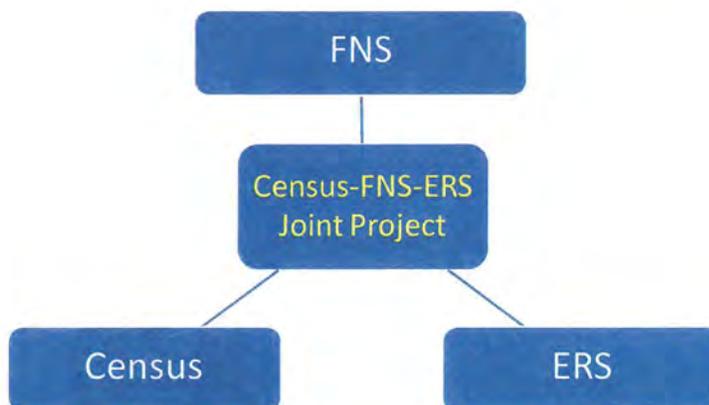
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7/22/2016

Partners Contribute Specialized Expertise and Resources

- **FNS programmatic support:**
  - ➢ meets statutory use restriction for administrative or enforcement purpose
  - ➢ knows SNAP's issues
  - ➢ facilitates acquiring SNAP data from States
- **Census "infrastructure" support:**
  - ➢ IT and acquiring, cleaning, linking data
  - ➢ policies & procedures for handling data (maximize use while protecting confidentiality and integrity)
  - ➢ Accessing Census data requires research to provide a Census benefit and researcher obtains Special Sworn Status as a Census agent.

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Partners Contribute Specialized Expertise and Resources (continued)

- **ERS analytical and financial support:**
  - ➢ economics, statistics and econometric modeling
  - ➢ identifies policy and economic issues with FNS and Census
- **State SNAP agencies are key partners too:**
  - ➢ State-specific expertise in SNAP files
  - ➢ quid-pro-quo recipients of statistical results
- **Other partners:** OMB, OGCs, and political leadership

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7/22/2016

SNAP Agreements at Census: A process to reach final signature

In Draft Review
Ready for Signing
Signed
(as of July 7, 2016)

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Next Steps

- More States, more programs
- Nutrition and food security research
- Expanding "data" access
  - ➢ confidential SNAP data as "data": external researcher access via Federal Statistical Research Data Centers
  - ➢ statistical aggregates as "data": Census developing data visualization (Tableau)

USDA Economic Research Service

Improving Economic Opportunity in America
New Lessons from Administrative Data

Raj Chetty

Stanford University

The American Dream?

- Probability that a child born to parents in the bottom fifth of the income distribution reaches the top fifth:

The American Dream?

- Probability that a child born to parents in the bottom fifth of the income distribution reaches the top fifth:

USA	Chetty, Hendren, Kline, Saez 2014	**7.5%**
UK	Blanden and Machin 2008	**9.0%**
Denmark	Boserup, Kopczuk, and Kreiner 2013	**11.7%**
Canada	Corak and Heisz 1999	**13.5%**

The American Dream?

- Probability that a child born to parents in the bottom fifth of the income distribution reaches the top fifth:

USA	Chetty, Hendren, Kline, Saez 2014	**7.5%**
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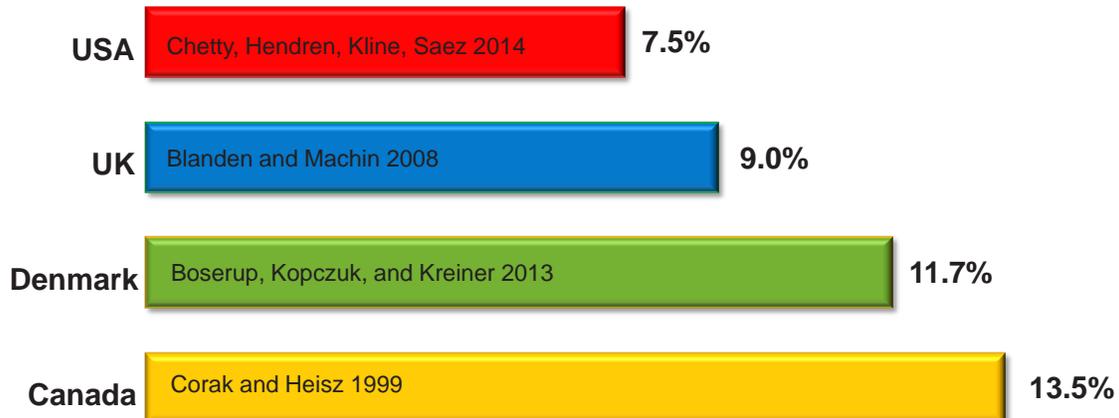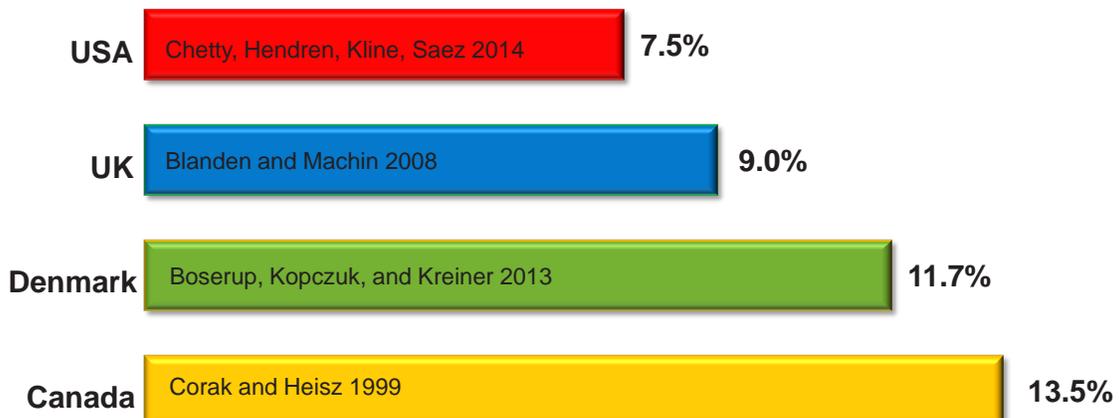
→ Chances of achieving the "American Dream" are almost two times higher in Canada than in the U.S.

Differences in Opportunity Within the United States

- Differences across countries have been the focus of policy discussion

- But upward mobility varies even more *within* the U.S.

- We calculate upward mobility for every metro and rural area in the U.S.

  - Use de-identified data from IRS tax records (part of a broader project on effects of tax expenditures)

  - 10 million children born between 1980-1982

Source: Chetty, Hendren, Kline, Saez 2014: The Equality of Opportunity Project

The Geography of Upward Mobility in the United States
Chances of Reaching the Top Fifth Starting from the Bottom Fifth by Metro Area

Denver 8.7%

Chicago 6.5%

Boston 10.4%

San Jose 12.9%

Charlotte 4.4%

Salt Lake City 10.8%

Atlanta 4.5%

Legend
> 16.8%
12.9% - 16.8%
11.3% - 12.9%
9.9% - 11.3%
9.0% - 9.9%
8.1% - 9.0%
7.1% - 8.1%
6.1% - 7.1%
4.8% - 6.1%
< 4.8%
Insufficient Data

Note: Lighter Color = More Upward Mobility
Download Statistics for Your Area at www.equality-of-opportunity.org
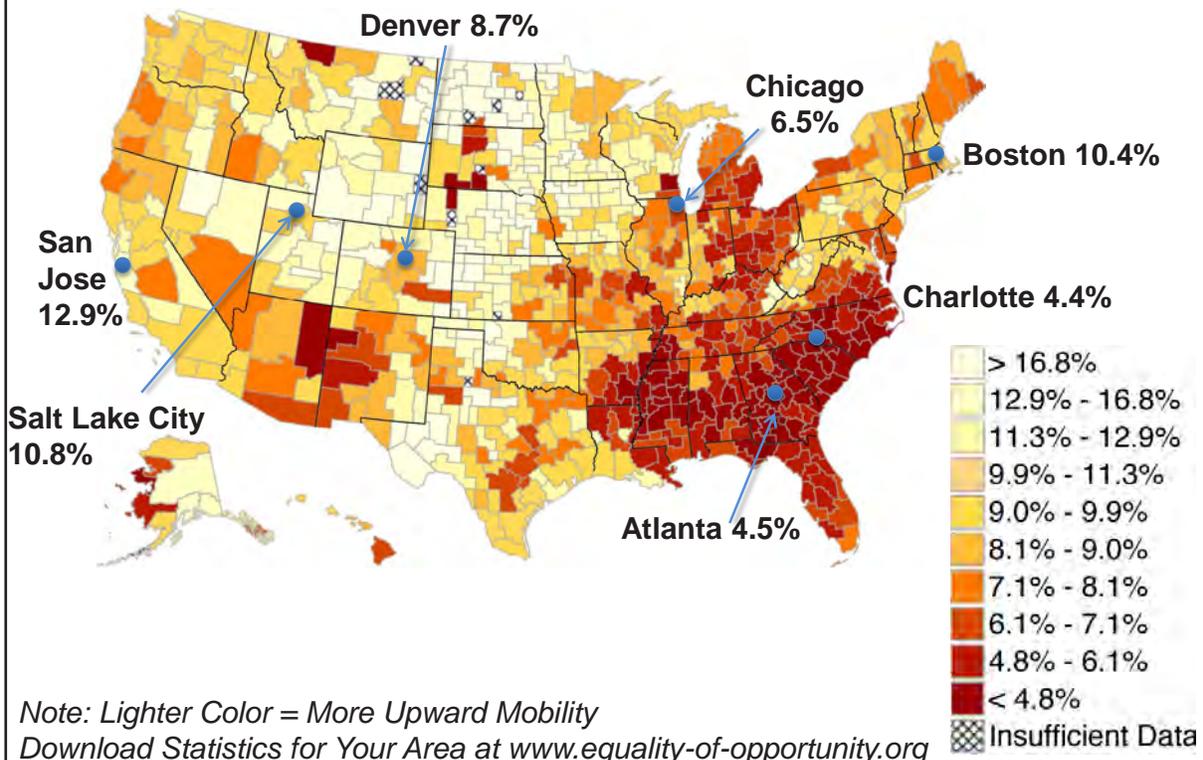
The Geography of Upward Mobility in the Washington Metro Area
Chances of Reaching the Top Fifth Starting from the Bottom Fifth by County

Baltimore: 3.5%
District of Columbia: 4.7%
Prince George's: 9.2%
Montgomery: 16.0%

Franklin
Hartford
Carroll
Frederick
Baltimore
Hampshire
Mont-gomery
Fairfax
DC
Prince George's
Fauquier
Charles
Dorchester

> 14.6%
(13.4%, 14.6%)
(11.5%, 13.4%)
(10.7%, 11.5%)
(10.1%, 10.7%)
(9.3%, 10.1%)
(8.4%, 9.3%)
(6.7%, 8.4%)
(5.0%, 6.7%)
< 5.0%
Insufficient Data
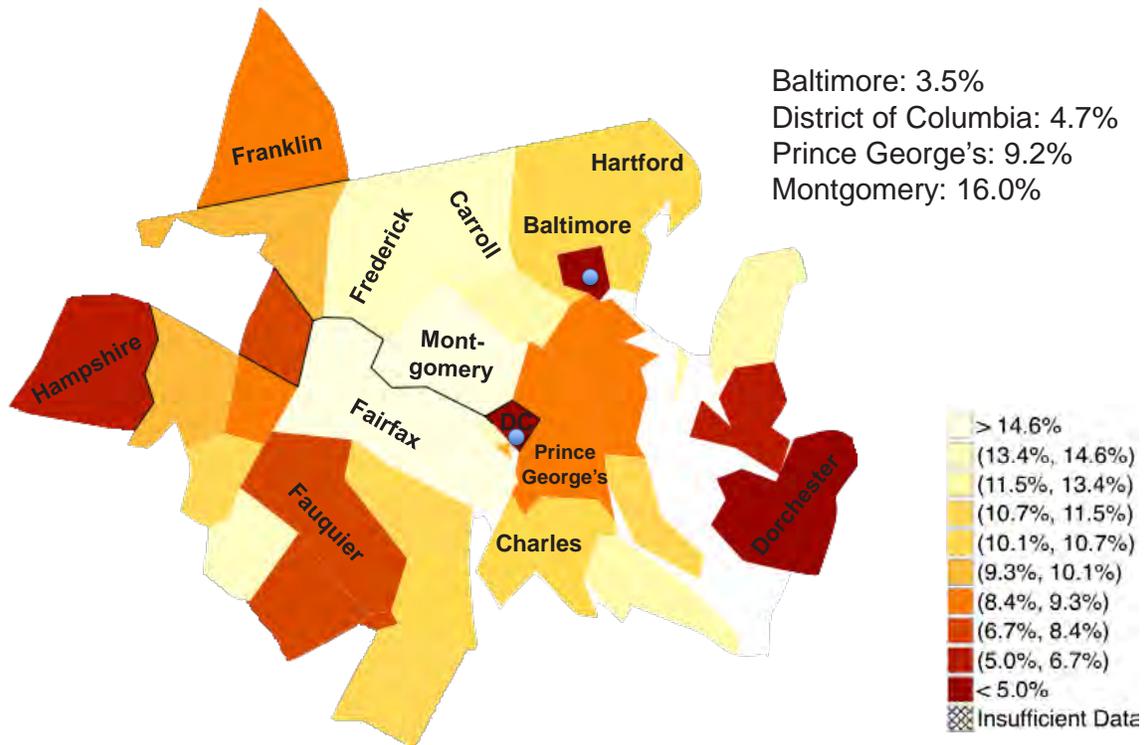
Why Does Upward Mobility Differ Across Areas?
The Importance of Childhood Environments

- Most of the variation in upward mobility across areas is caused by differences in childhood environment

- Demonstrate this by studying 5 million families that move between areas using tax records

Source: Chetty and Hendren 2015

Earnings Gain from Moving to a Better Neighborhood

Washington DC ($30,000)

Earnings Gain from Moving to a Better Neighborhood

Montgomery County ($40,000)

Washington DC ($30,000)

Earnings Gain from Moving to a Better Neighborhood

Montgomery County ($40,000)

*Move at age 9 → **54% of gain** from growing up in Montgomery County since birth*

Washington DC ($30,000)

Gain from Moving to a Better Area

Age of Child when Parents Move

Earnings Gain from Moving to a Better Neighborhood

Montgomery County ($40,000)

Washington DC ($30,000)

Gain from Moving to a Better Area

Age of Child when Parents Move

Earnings Gain from Moving to a Better Neighborhood

Gain from Moving to a Better Area (y-axis: 0% to 100%)

Montgomery County ($40,000)

Washington DC ($30,000)

Age of Child when Parents Move (x-axis: 10 to 30)

What are the Characteristics of High-Mobility Areas? Five Strongest Correlates of Upward Mobility

1. Less residential segregation

2. Larger middle class

3. More stable family structure

4. Greater social capital

5. Better school quality

Housing Vouchers and the Moving to Opportunity Experiment

- Results suggest that giving low-income families housing vouchers to move to better areas canimprove outcomes

- HUD Moving to Opportunity Experiment: gave vouchers to move to low-poverty areas using a randomized lottery

  - 4,600 families in Boston, New York, LA, Chicago, and Baltimore in mid 1990's

  - Prior work found little impact of MTO on economic outcomes

  - We linked MTO data to tax records to track long-term impacts on children who moved at younger ages

Source: Chetty, Hendren, and Katz 2015

Common MTO Residential Locations in New York
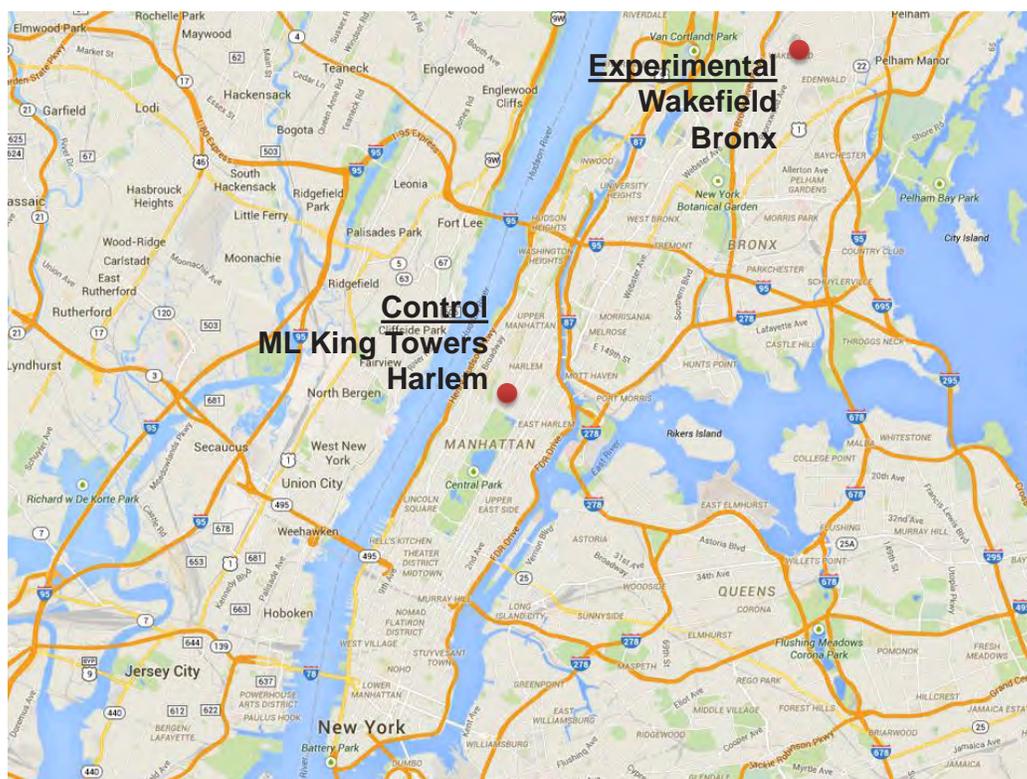
Moving to Opportunity Experiment Re-Analysis

- Children who moved to low-poverty areas when young (e.g., below age 13) do much better as adults:

  - 30% higher earnings = $100,000 gain over life in present value
  - 27% more likely to attend college
  - 30% less likely to become single parents

- But moving had little effect on the outcomes of children who were already teenagers

- Moving also had no effect on parents' earnings

- Confirms that *duration of exposure* to better neighborhood matters, explaining why previous studies didn't find any effects

Impact of MTO Experimental Voucher on Earnings in Adulthood by Child's Age at Move
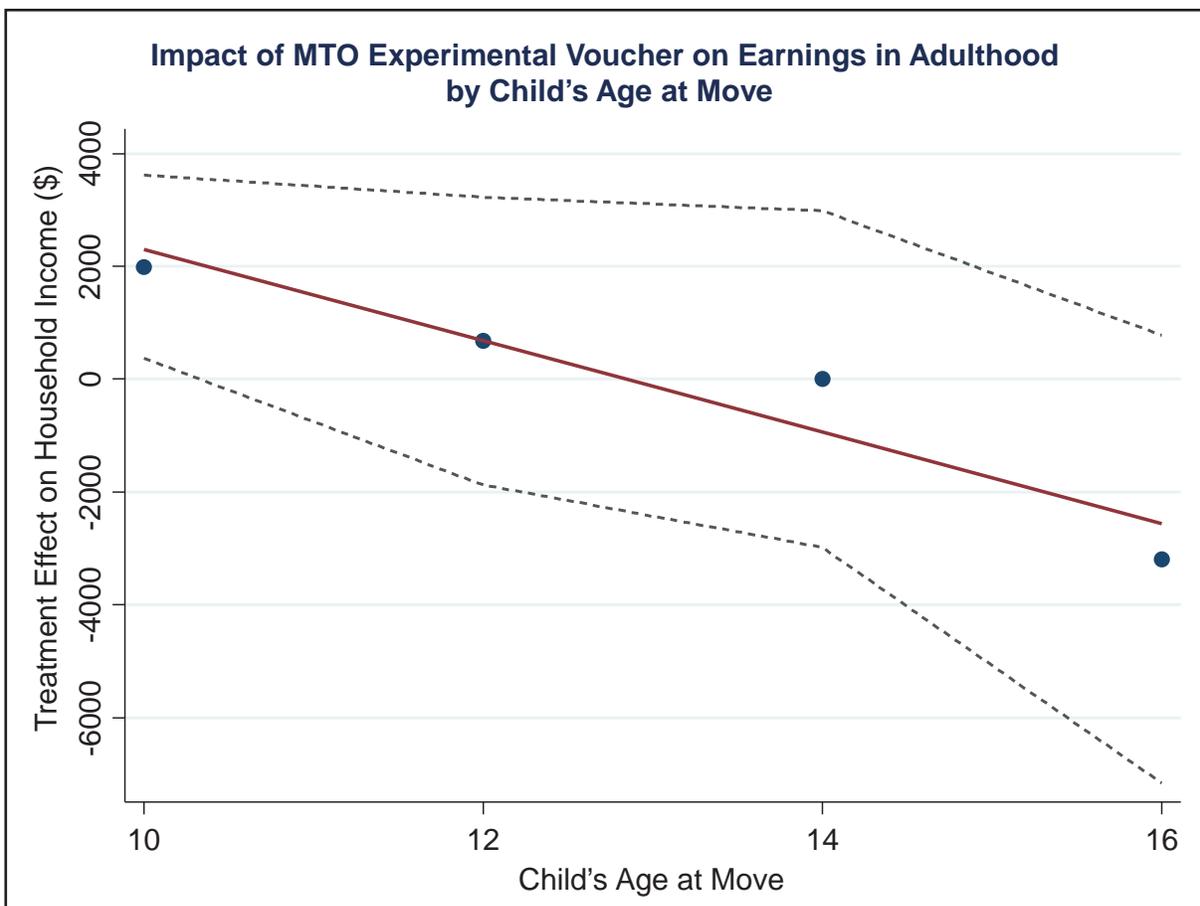
Key Barriers to Using Administrative Data for Research

1. Scarce bandwidth and limited access

    –   Ex: complex contracting process, few physical locations for IRS; inadequate space in Census RDC's

2. Outdated technology due to scarce resources

    –   Ex: very small investments (~$100K) would greatly relax hard disk, RAM, and processor constraints at IRS

3. Very difficult to link datasets

    –   Ex: linking Census records to tax data would permit analysis of upward mobility by race

▪   Contrast with Danish statistical agency, gold standard for research

Improving Evidence-Based Policy in the U.S.

1. Create a centralized data warehouse that links datasets

    –   IRS data provide an ideal spine for linking other data

    –   Many existing surveys redundant; focus on collecting information not already in administrative data

2. Provide secure, direct access to data with simplified access protocols

    –   Synthetic data do not work well for iterative analysis

    –   Rapid retrieval of statistical results critical; current Census RDC approval often too slow

Improving Evidence-Based Policy in the U.S.

3. Start from randomized experiments, but support a broader range of methods

   – Experiments under-powered, especially for studying long-term effects

   – Quasi-experimental methods leverage big data most directly

   – Constructing descriptive statistics to monitor progress (e.g., in local areas) is itself very valuable

Cumulative Number of Researchers who have Written Papers Using IRS Population Tax Data
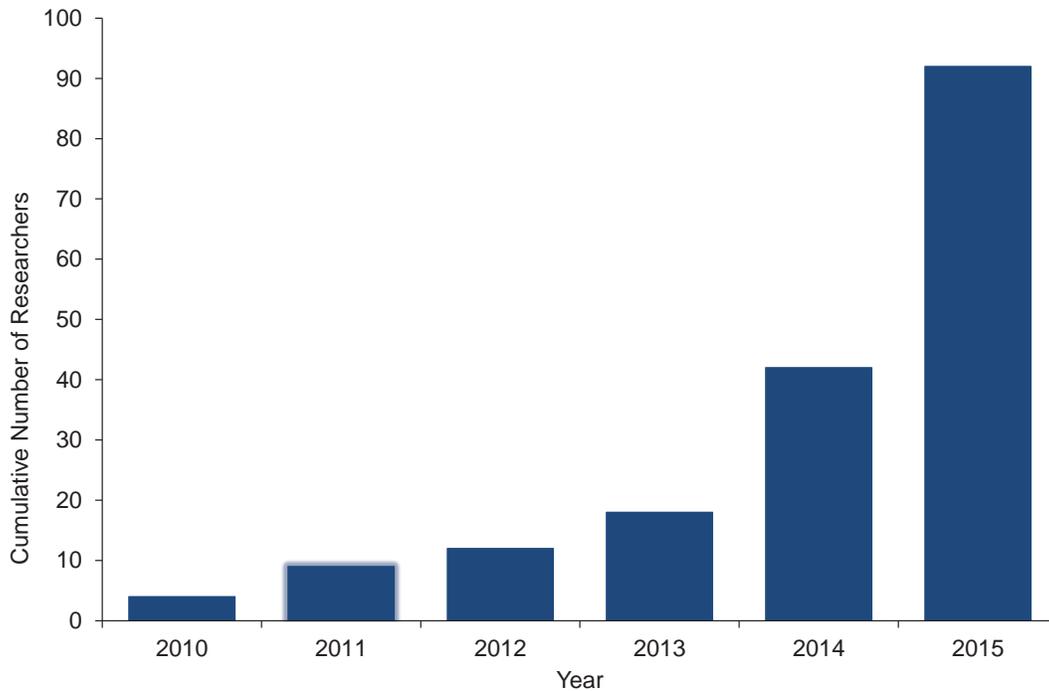
U.S. Department of Justice
Office of Justice Programs

Presented by
Jeri Mulrow
Acting Director
Bureau of Justice Statistics
July 22, 2016

A Case Study: Transforming National Criminal History Records into a Statistical Database

for the
Commission on Evidence-Based Policymaking
First Meeting

The National Academies of Sciences, Engineering, and Medicine
2101 Constitution Avenue NW, Lecture Room
Washington, DC

BUREAU OF JUSTICE STATISTICS

Bureau of Justice Statistics

- A principal Federal statistical agency

- Sits in the Department of Justice Office of Justice Programs
  - FBI, U.S. Marshals, Bureau of Prisons, Drug Enforcement Administration, U.S. Attorney, Civil Rights Division,….

- Measures the U.S. justice system: A collection of independent systems at the local, state, and federal level.

The Criminal Justice System

Bureau of Justice Statistics—Statistical coverage
www.bjs.gov
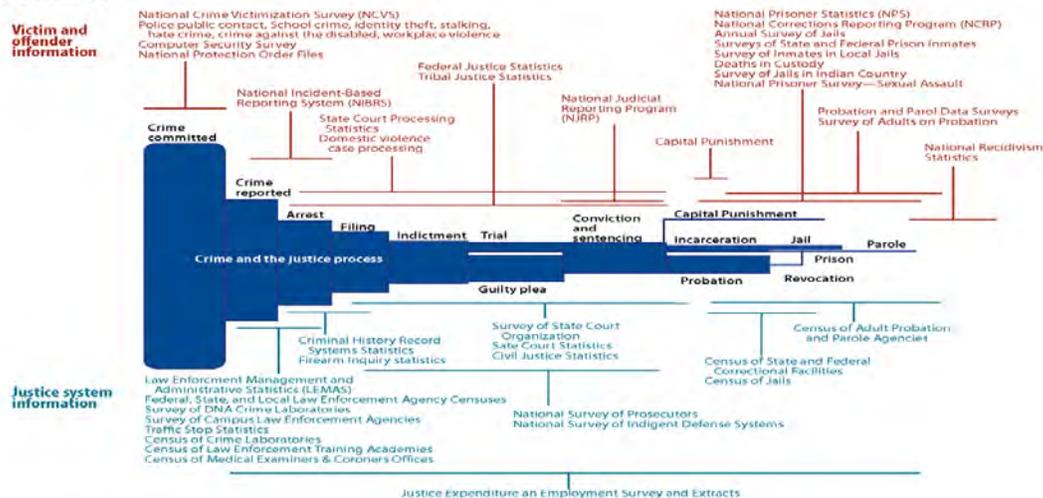
Why Criminal History Records?

- Important policy or evaluation questions

- Existing data

- Impacts a lot of people.
  - There are roughly 100 million criminal history records.

➡️ Potential for evidence-based policy making

Existing data: Rap Sheets

Each state maintains its own repository.
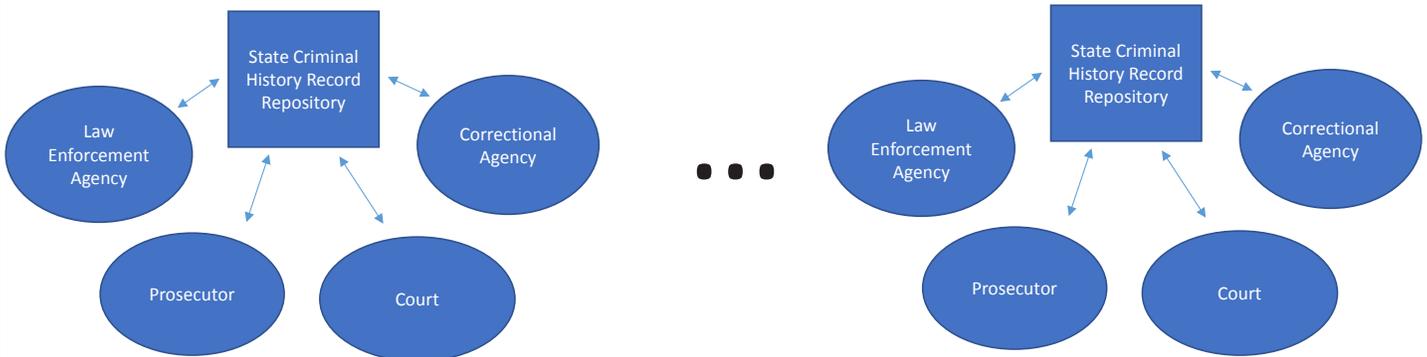
Example of Rap Sheet Format in State A

```
NAME          XXXXXXXXXXXXXXXXXX    STATE ID    XXXXXXXXXXXX
SSN           XXX-XX-XXXX           FBI NO.     XXXXXXXXXXXX
CITIZENSHIP   UNKNOWN
BIRTH DATE    XXXX/XX/XX            BIRTH PLACE  XXXXXXXXXXXX
DECEASED      NO
RACE          WHITE                 SEX          FEMALE
ETHNICITY                           SKIN TONE
HEIGHT        5'05"                 WEIGHT       165
HAIR          BROWN                 EYES         BLUE
CRIMINAL HISTORY
ARREST 1
DOA           1992/10/25            DOO
AGENCY        POLICE DEPARTMENT
ARREST TYPE   ADULT                 AGENCY CASE  XXXXXX
CHARGE 1                            OFF STATUTE  6-3-404
SEVERITY      MIS
COURT DISPOSITION
DISP DATE     1992/10/27            DOCKET #     XXXXXX
OFF SEVERITY MIS                    OFF COUNT    1
VERDICT       CONVICTED             FELONY       NO
BRADY/IFS     CLEAR                 VOTING       YES
SENTENCE      PROBATION
FINE          $100.00               RESTITUTION  $85.00
SUSPENDED                           VICTIM COMP
MIN CONF                            MAX CONF
MIN PROB      180 DAYS              MAX PROB     ONE YEAR
```

Example of Rap Sheet Format in State B

```
    NAME:        XXXXXXXXXXXX            DOB:        XX/XX/XXXX
    SID NUMBER: XXXXXXXXXXXX             FBI NUMBER: XXXXXXXXXXXX
    DOC NUMBER: XXXXXXXXXXXX             SOC SEC     XXXXXXXXXXXX
**************************************************************************
                         PERSON INFORMATION
**************************************************************************
    SEX   RACE  HEIGHT  WEIGHT   EYES   HAIR    PLACE OF BIRTH   CITIZENSHIP
     M     B     600     160     BRO    BLK          XX              US
                         CRIMINAL HISTORY INFORMATION
**************************************************************************
ARREST 1                                       DATE OF ARREST: 06/12/1991
-------------------------------------------------------------------------
    NAME USED:          XXXXXXXXXXXX
    CONTRIBUTING AGENCY:  POLICE DEPARTMENT
    LOCAL ID:  XXXXXXXXXXXX              PCN: XXXXXXXXXXXX    TCN: N/A
-------------------------------------------------------------------------
    ARREST OFFENSES              |   DISPOSITION
    09930 FAIL TO COMPLY         |   CONTRIBUTOR OR RESPONSIBLE AGENCY:
    CLASS UNKNOWN                |      MUNICIPAL COURT
    ORIGINATING AGENCY:          |
          POLICE DEPARTMENT      |      STATUS: DISPOSITION NOT RECEIVED
    OIN:            XXXXXXX       |
    DISPO RESPONSIBILITY:   COURT|   CONTRIBUTOR OR RESPONSIBLE AGENCY:
    COURT CASE NO: XXXXXXX        |   SUPERIOR COURT
    COMMENT: BURGLARY            |
                                 |      COURT CASE NO: XXXXXX
                                 |
    CLASS UNKNOWN                |   STATUS:         GUILTY
    ORIGINATING AGENCY:          |      THEFT-3
          POLICE DEPARTMENT      |      RCW:          9-46-20
    OIN                          |      MISDEMEANOR
    DISPO RESPONSIBILITY: COURT  |      STATUS DATE:  08/27/1991
    COURT CASE NO:      XXXXXX   |      SENTENCE:     SENT. DESC.:
                                 |      CHG 01: JAIL-15 DS/SUSPENDED
                                 |        1 YR, SUPV-12 MOS
-------------------------------------------------------------------------
```

BJS

Example of Rap Sheet Format in State C

```
NAME(S):            XXXXXXXXX
FBI NUMBER          DPS NUMBER
XXXXXXXXX           XXXXXXXXX
SOCIAL SECURITY     DRIVERS LICENSE     ID NUMBER
XXXXXXXXX           XXXXXXXXX
SEX                 RACE                SKIN TONE
M                   B                   MED
HEIGHT              WEIGHT              DATE OF BIRTH
510                 180                 XX-XX-XXXX
HAIR COLOR          EYE COLOR           FINGERPRINT PATTERN
BLK                 BRO
PLACE OF BIRTH      CITIZEN             III CODE
TX                  US                  MULTI-STATE
==================================================================
EVENT CYCLE 1
      TRACKING NUMBER      XXXXXXXXX
      ARREST DATE          05-06-1995
      TYPE                 ADULT
      AGENCY               0180000 - STATE POLICE
------------------------------------------------------------------
    OFFENSE DATA
      OFFENSE DATE         05-06-1995
      OFFENSE              BURG
      CITATION             PC 40.02(a)
      LEVEL & DEGREE       FELONY - 1ST DEGREE
      DISPOSITION          HELD
      REFERRED             DISTRICT ATTORNEY OFFICE
------------------------------------------------------------------
    COURT DATA
      COURT AGENCY         5TH DISTRICT COURT
      COURT OFFENSE        BURGLARY OF HABITATION
      CITATION             PC 30.02(a)
      LEVEL & DEGREE       FELONY - 1ST DEGREE
      DISPOSITION          CONVICTED
      DISPOSITION DATE     03-30-1996
      SENTENCE DATE        03-30-1996
      FINAL PLEADING       GUILTY
      CONFINEMENT          10Y
```

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Connecting together State Rap Sheets

FBI

Interstate Identification Index

Nlets

BJS

Simplified Description of III System:
A Request for a Multi-State Criminal History Record (or Rap Sheet)

Request NY#123456

Nlets

NY# 123456

FBI

III

BJS
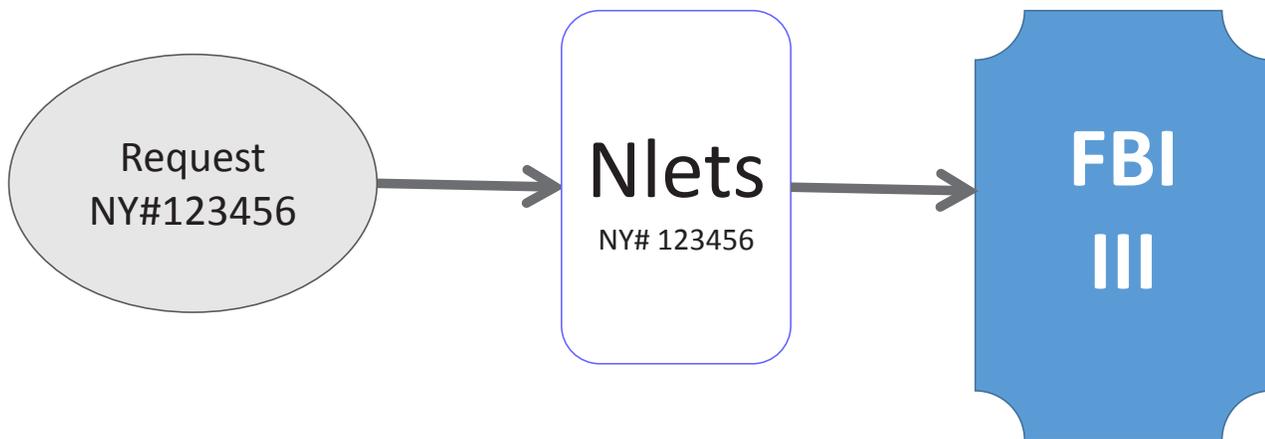
III Provides Federal Portion of Rap Sheet to Nlets along with the Person's State ID Numbers; then Nlets Requests State Records
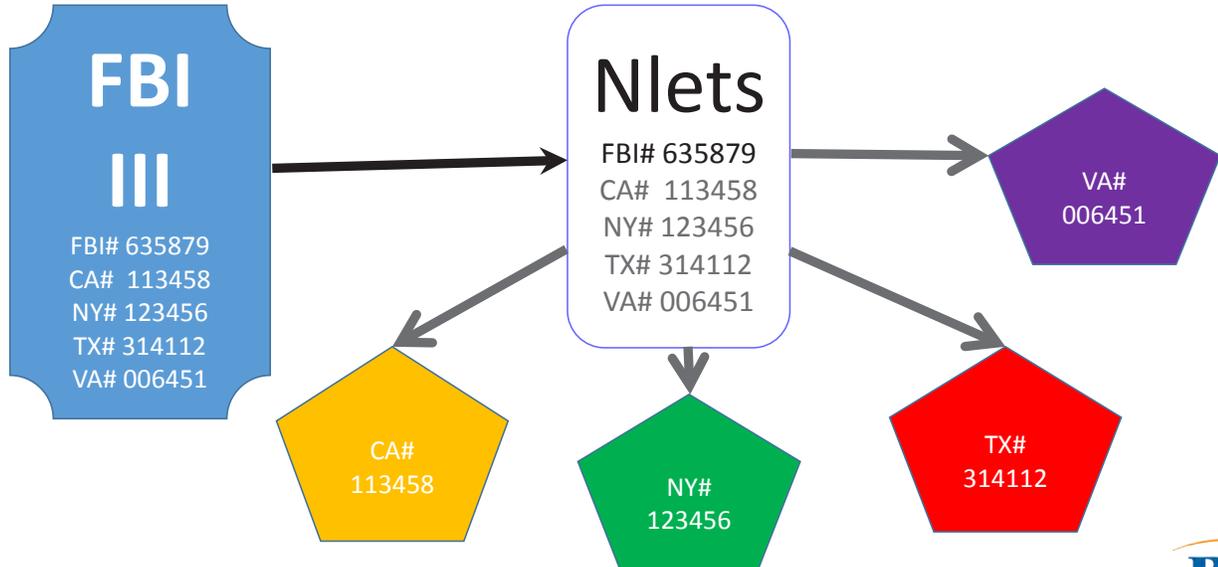
State Repositories Return State-Specific Rap Sheets and Nlets Sends Set to Requesting Agency
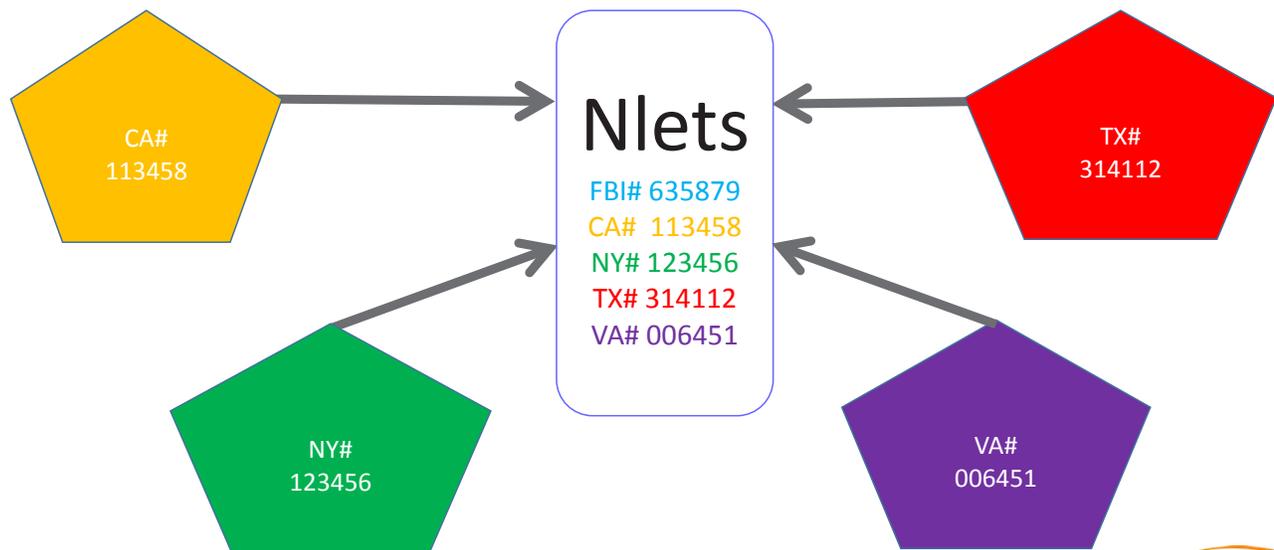
Challenges to using Criminal History Records

1. Gaining access

2. Standardizing for statistical purposes

3. Understanding quality

4. Archiving

BJS

Challenge 1: Gain Access (Obtain permission)

2006: Began exploring how to gain the permission to access

2008: Signed MOU with FBI

- Duties of each agency
- Terms of use
- Extensive security provisions
- Point of entry

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Challenge 2: Standardize the Criminal History Records

Step 1: Parse individual state rap sheet data

- Identify key data fields
- Identify location of key data fields in EACH state format
- Create programs to parse text strings
- Copy into a standardized relational database

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Rap sheet fields in the uniform record layout

Subject segment
- BJS case number
- Name
- State identification number (SID)
- FBI identification number
- Date of birth
- Gender
- Race
- Social security number

Court/Sentencing segment
- Court disposition date
- Court name and ORI
- Statute number
- NCIC code
- Offense description
- Type of court disposition
- Sentences (prison, fine , etc.)

Arrest segment
- Date of offense
- Date of arrest
- Arresting agency name and ORI
- Statute number
- NCIC code
- Charge description
- Charge severity
- Arrest disposition
- Arrest disposition date

Supervision segment
- Supervision date (admission, release, etc.)
- Agency name and ORI
- Supervision description

BJS

Challenge 2: Standardize the Criminal History Records

Step 2: Recode state specific data into a common taxonomy

- Map state specific statutes into the common codes
  - Initially done by hand to interpret the statutes
  - Developed automated coding programs/crosswalks
  - Validated the crosswalks
- Maintain and update the library of state to state crosswalks
  - Revise crosswalks as state statutes change or create new crimes

BJS

Challenge 3: Evaluate quality

Data Quality

- Are there parsing and coding errors?
  - Feed back identified errors to Nlets
  - Check for large amounts of uncoded or unknown codes

- Are there patterns of missing data?
  - Feed back identified gaps to States
  - Support states to report more complete data

BJS

Challenge 4: Archiving

This is a remaining challenge –
    Need to balance regulatory restrictions
    With ability to be transparent and reproducible

BJS

Costs*

Developmental costs – about $3.0 million.
    $1.1 million for initial record acquisition, collation, parsing.
    $1.9 million for initially standing up the data standardization software,
        coding crosswalks, creation of recode libraries.

Maintenance costs – about $360,000 annually
    Acquisition, collation, etc. – about $60,000
    Maintenance of standardization software, recode library and crosswalks –
        about $300,000 per cohort study.

    *excludes OJP & BJS staff salaries and overhead.

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A Case Study…

- Enhances Nation's criminal justice data infrastructure

- Potential is still to be fully realized for evidence-based policy decisions

- Continued data quality improvement with use
  - Improves operational uses
  - Improves statistical and research uses
  - Improves evaluation uses

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Thank you!

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BJS

September 9, 2016 Meeting

CEBP

State Legal Perspectives

Illinois

9 September 2016

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Illinois Perspectives

1. **Public vs. Private Universities - access to UI data - 20 C.F.R. § 603.**

2. **Data sharing agreements**

    ▫ **the Illinois Enterprise Memorandum of Understanding**

1. Public vs. Private Universities: access to UI data

Code of Federal Regulations on Employee Benefits (Title 20 of the CFR)

20 C.F.R. § 603.4 requires us to keep UI data confidential

20 CFR § 603.5(e) permits us to share UI data with a "public official"

20 CFR § 604.2(d) says that a "public official" can include:

> (5) A State educational authority, agency, or institution as those terms are used in the Family Educational Rights and Privacy Act, **to the extent they are public entities**.

2. Data Sharing Agreements

The Illinois Enterprise Memorandum of Understanding (eMOU) on data sharing

- Internal (but externals are in the works)

- Establishes common agreed to framework and terms

- Employs active management by an Operational Committee

- Contemplates, but does not require, a technological platform across which the data would be shared

- Rapid, compliant, flexible

2. Data Sharing Agreements

The Illinois Enterprise Memorandum of Understanding (eMOU) on data sharing

➢ Educational institutions at all levels (public and private)

➢ Local units of government

➢ Business workforce groups

➢ Criminal justices groups

Thank you

Cynthia Dwork – Evidence-Based Policymaking

Differential Privacy and its Properties

Differential Privacy is a definition of privacy, and a collection of supporting algorithmic techniques, tailored for privacy-preserving statistical analysis of large datasets.

Differential privacy is a mathematical guarantee that an individual data contributor will not be affected, adversely or otherwise, by allowing her data to be used in any study or analysis, no matter what other studies, data sets, or information sources, are -- or will become – available. At their best, differentially private algorithms can make confidential data widely available for accurate data analysis, without resorting to data clean rooms, data usage agreements, data protection plans, or restricted views. Nonetheless, data utility will eventually be consumed: the Fundamental Law of Information Recovery states that overly accurate estimates of too many statistics can completely destroy privacy (Dinur and Nissim, 2003; Dwork et al, 2007; Homer et al, 2008, Dwork et al., 2015b). The Fundamental Law can no more be circumvented than can the laws of physics.

Every useful computation results in some loss of privacy. Differential privacy measures and controls privacy loss accumulating over multiple analyses.   This signal capability makes it possible to "program" in a differentially private fashion. In ordinary, non-private computation, anything computable can be computed using only addition and multiplication, but this is not how programmers work. Algorithm design is the creative combining of appropriate computational primitives to carry out a sophisticated computational task, while minimizing the consumption of key resources, such as time and space. Similarly, differentially private algorithm design is the creative combining of simple differentially private primitives to perform a sophisticated analytical task, while also minimizing privacy loss and inaccuracy. As a rule, when the dataset is large the signal dominates the noise injected for privacy; when the dataset is small this is not the case. This is correct; think of the case of a dataset of size one: to ensure privacy the noise *must* dominate the signal. Designed to preserve the privacy of everybody – even the needles in the haystack – the goal is to elicit participation, without fear of repercussion, for a public good, such as learning that smoking causes cancer, and other facts of life. Indeed, it is often the outliers who most need protection.

Differential privacy also provably controls privacy loss accruing over computations on multiple, possibly overlapping, datasets, making it especially relevant to the kinds of analyses that will be needed for evidence-based policy making.

The Fundamental Law tells us that *meaningful* privacy guarantees come at a price. Other disciplines, such as ethics and economics, cannot be brought to bear without a measure of privacy loss.   Differential privacy provides such a measure (Abowd and Schmutte, 2015).

Finally, differential privacy strengthens the scientific method in an unexpected way, even when privacy is not a concern. The rise of "Big Data" has been accompanied by increased risk of spurious scientific discovery. A great deal of effort has been devoted to reducing this risk, from the use of sophisticated validation techniques, to deep statistical methods for controlling the false discovery rate in multiple hypothesis testing. However, there is a fundamental disconnect between the theoretical results and the practice of data analysis: the theory of statistical inference assumes a fixed collection of hypotheses to be tested, selected *before* the data are gathered, whereas in practice data are shared and reused, with

hypotheses and new analyses being generated on the basis of data exploration and the results of previous studies on the same dataset. This leads to overfitting, that is, learning about the dataset rather than about the population from which it is drawn. Differential privacy automatically protects against this source of false discovery (Dwork et al., 2015a).

Key Considerations

Differential privacy holds great promise but requires great effort. The Fundamental Law forces economic considerations in how data should be used, increasing the imperative for high quality differentially private algorithms, but the field is young and many of these will be the content of doctoral dissertations not yet written. The literature is silent on crucial preprocessing steps, such as imputation of missing fields and other aspects of data cleaning. Working with formal privacy guarantees requires a new skill set, foreign to most statistical agencies, social science researchers, and data scientists. Recent adoption of the approach by Google and Apple will draw talent away from the public and research sectors.

But what is the alternative? The distinction between Personally Identifiable Information (PII) and non-PII is not mathematically meaningful. In the words of the President's Council of Advisors on Science and Technology, "Anonymization is increasingly easily defeated by the very techniques that are being developed for many legitimate applications of big data. In general, as the size and diversity of available data grows, the likelihood of being able to re-identify individuals (that is, re-associate their records with their names) grows substantially" (PCAST, 2014). Traditional statistical disclosure limitation methods ruling out subtraction attacks do not defend against other attacks (Fellegi, 1972, and subsequent generalizations).

It is a consequence of the Fundamental Law that all privacy-preserving computations must introduce some error. Current statistical disclosure limitation (SDL) techniques also introduce errors. For example, one paper states, "These algorithms [with formal privacy guarantees] are currently being implemented on data gathered at a national statistical agency on which we empirically evaluate the utility of our algorithms. We show that for reasonable values of the privacy loss parameter … the error introduced by our provably private algorithms is comparable or better than the error introduced by existing SDL techniques" (Haney et al., 2015). Similarly, a study on privacy in massive open online courses (MOOCs) data from MITx and HarvardX on the edX platform reported that standard anonymization methods force changes to datasets that "threaten replication and extension of baseline analyses" (Daries et al., 2014). When the errors are introduced in a principled way, as in differential privacy, the analyst can better interpret the results.

Even synthetic data (Rubin, 1993) can be problematic. Once constructed, synthetic data may be queried ad libitum, with no risk of further privacy loss, using the analyst's choice of techniques. However, privacy is *not* an automatic consequence of the data being synthetic, but depends crucially on the process by which the synthetic data are constructed. (The Census Bureau uses synthetic data generated with a variant of differential privacy in OnTheMap, a website providing information on where people work and where workers live (Machanavajjhala et al., 2008).)

Recommendations

I close with three policy recommendations. First, *Publish Your Epsilons*. Differentially private algorithms are equipped with a privacy parameter, usually called epsilon, capping their privacy loss. In a non-private algorithm epsilon is infinite. But what is the "meaning" of a given value of epsilon? By maintaining a registry of privacy loss, akin to a toxic release registry, we can observe the accuracy/privacy tradeoffs actually made and stimulate competition to obtain better analyses at lower privacy costs, engaging those who traffic in the data of individuals in the effort to protect their privacy.

Second, *Establish a list of approved private data analysis techniques and appropriate applications, and keep it current*.

Third, *Consider Restraint*. In a data-rich world, the challenges revolve around the trade-off between what can be done and acceptance of the fundamental truth that overly accurate estimates of too many statistics can destroy privacy. If we are interested in privacy, sometimes restraint might be the right approach.

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OPENJUSTICE

Data-driven public safety

Justin Erlich, Special Assistant Attorney General
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California Department of Justice

OpenJustice.doj.ca.gov

What is OpenJustice?

*A **transparency** initiative led by the California Department of Justice that **publishes criminal justice data** so we can **understand how we are doing**, hold ourselves accountable, and **improve public policy** to make California safer.*

Vision For OpenJustice

- Ongoing national conversation on how to **strengthen trust** and **improve performance** of the criminal justice system

- **Smart on Crime approach** – transparency & metrics
  - ❖ Use transparency to strengthen trust
  - ❖ Develop metrics to understand how we are doing and where to prioritize interventions
  - ❖ Identify evidence-based investigative practices

- **Three key components**
  - ❖ Justice Dashboard to show visually how we are doing
  - ❖ Open Data Portal to make raw data available to public
  - ❖ Data reporting/collection improvement effort

Theory of Change

Collect	Analyze	Publish	Engage
Good data	**Rigorous analytics**	**Transparency**	**Awareness**
▪ Improve quality of existing data	▪ Bring big data methodologies	▪ Release raw data	▪ Engage policy makers and local criminal justice partners
▪ Move towards real time reporting	▪ Partner with researchers	▪ Lift up clear and actionable insights	▪ Inform the community to build trust
▪ Ensure we are have the right data fields	▪ Identify policy improvements	▪ Crowdsource data analysis	
		▪ Share policies that are working	

The first six datasets

OPENJUSTICE   DASHBOARD   DATA PORTAL   ABOUT   FAQS   GLOSSARY   RESOURCES

JUSTICE DASHBOARD

Criminal Justice indicators with interactive visualization tools and analysis

AGENCY & COUNTY DATA   **CRIME RATES**   **CLEARANCE RATES**

ARREST RATES   **DEATH IN CUSTODY & ARREST-RELATED DEATHS**   **LAW ENFORCEMENT OFFICERS KILLED OR ASSAULTED**
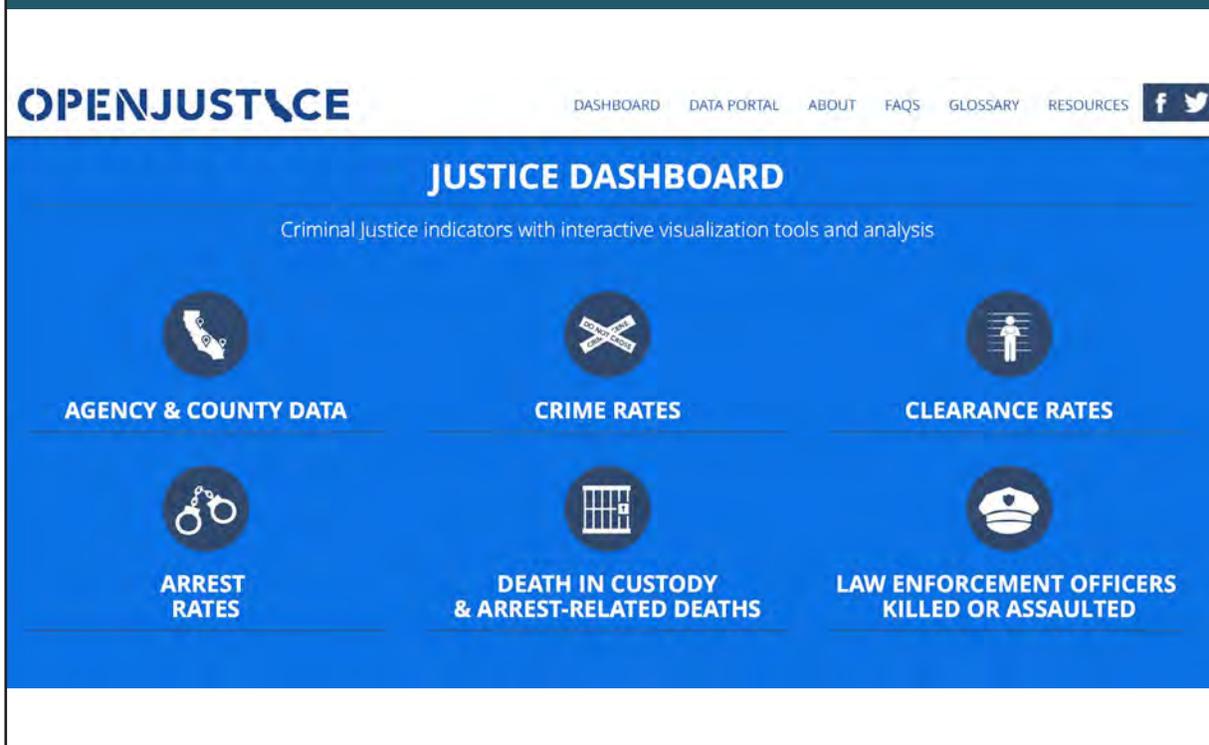
The Dashboard visualizes the data to give the public a clearer statewide picture

OPENJUSTICE   DASHBOARD   MENU

DEATH IN CUSTODY   OVERVIEW   ARREST RELATED   PRE-TRIAL   SENTENCED   SIDE-BY-SIDE

At what stages of custody did the deaths occur?

Most deaths in custody occurred among jail and prison inmates serving their sentences after a conviction. Roughly one-third of deaths occurred during the process of arrest or in a pre-trial stage of custody.

Total = 6,837

Number of Deaths

Arrest-Related | Awaiting Booking | Booked & No Charges Filed | Booked & Awaiting Trial | Sentenced | Other

It also shows differences across counties and agencies throughout the state
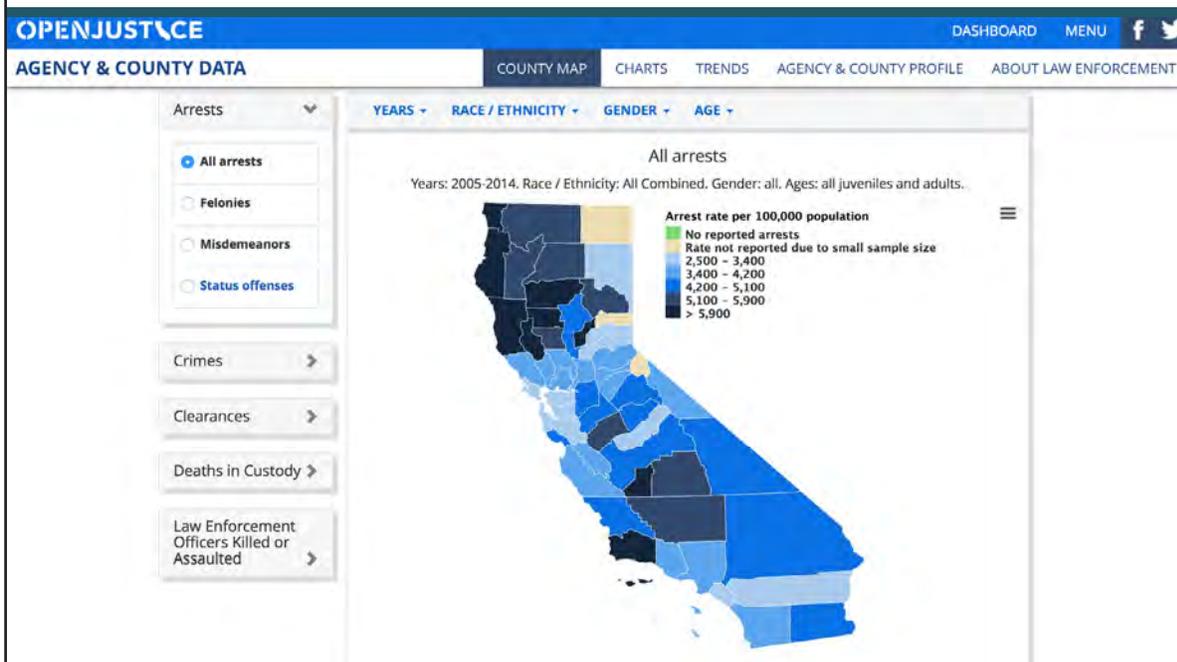
❖ **Includes contextual data such as pop. demographics, education, employment, etc.**

Open Data benefits & risks

Benefits

❖ Data is a "public good"

❖ Transparency builds trust

❖ Open by default is a signaling function; reduces transaction costs

❖ Increases potential for research capacity by expanding access

❖ Unlocks innovation and possibilities

Risks

❖ Identity disclosure (e.g., Mugshots.com) and/or re-identification

❖ Inferential disclosure

❖ Bad data = bad policy

Tensions unique to criminal justice data

- ❖ Unlike most health and education data, certain criminal justice data tends to be available in local jurisdictions (e.g. court records, PRAs)

- ❖ But aggregated statewide "Criminal Offender Record Information" (CORI) is still confidential

- ❖ Criminal records can be stumbling blocks to getting jobs, housing, etc. so stakes are high

- ❖ There are additional access points (e.g., press releases, news coverage) that makes open criminal justice data particularly vulnerable to linkage attacks

- ❖ No guidelines like HIPAA or FERPA in the law enforcement space

Key attributes of the data

- ❖ In addition to unique identifiers (e.g., Name), there are a generally a core set of data fields that can be quasi-identifiers:
    - ❖ Gender
    - ❖ Race
    - ❖ Age
    - ❖ Offense Type
    - ❖ Date of Offense
    - ❖ Location/jurisdiction of incident

- ❖ The problem of small numbers and geographical boundaries
    - ❖ Small cities, counties, law enforcement pose the biggest challenges
    - ❖ As we move to more granular geographical data collection, this will only get more challenging

- ❖ We are exploring "binning"
    - ❖ Combining into age buckets
    - ❖ Month of offense rather than date
    - ❖ Aggregating jurisdictional data under a certain population

Dataset snowflakes

❖   Each dataset may contemplate a different balancing test, depending on whose data we are dealing with

❖   Different stakeholder groups, including:

> ❖   Victims of crimes (e.g., sexual assault, DV, child abuse)
> ❖   Decedents or relatives (e.g., death in custody)
> ❖   Gun owners
> ❖   Law enforcement personnel
> ❖   Special class groups (e.g., Juveniles, mental health patients)
> ❖   Individual arrested but released, acquitted etc.
> ❖   Individuals convicted

"Responsible transparency"

➢ **Tiered data access**
> ➢   "Anonymized" data on open data portal + data use agreement
> ➢   Some data w/ PII available to external researchers upon application
> ➢   Some data only available to internal researchers

➢ **Strategy for "anonymized" data**
> ➢   Holding internal conversations on risk appetite
> ➢   Forming committee of experts to advise on value of granularity vs. risk of re-identification
> ➢   Seeking collaboration with data scientists to model risks and provide recommended levels of depth
> ➢   Exploring hack-a-thon approach to stress test data for disclosure risks

➢ **Transparency on transparency**
> ➢   Drafting white paper on how we approached this issue and developed our policies

Building Trust is Critical to an Evidenced-Based Culture: Lessons from the Education Sector

Aimee Rogstad Guidera
President and CEO

DQC
DATA QUALITY
CAMPAIGN

People won't use data unless it is both valuable and trustworthy.

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Data Answer Key Questions

Parents — Is my child on track to graduate ready for opportunities?

How do I know if my students are learning the material? How can I improve my teaching? — **Teachers**

School leaders — Are more of our students prepared for college and careers than last year?

Are colleges, universities producing enough graduates with right degrees or skills to meet the employer's needs? — **Policy makers**

Public — How are the schools in my community performing?

DQC DATA QUALITY CAMPAIGN

THE BIG IDEA

What does it mean to *use data* in service of student learning?
Data is one of the most powerful tools to inform good decisions and create opportunities for students along their education journey—and it's much more than test scores. Data helps us make connections that lead to insights and improvements. Everyone has an important role to play in helping all students succeed in their own individualized ways. Here's what it will look like when data is working for all students.

STUDENTS
"I know my strengths and where I need to grow. I can shape my own education journey."

MY EDUCATION JOURNEY

GUIDANCE COUNSELORS

RESOURCE SPECIALISTS

INSTRUCTIONAL LEADERS

SUPERINTENDENTS

PRINCIPALS

TEACHERS
"I know where my students are succeeding and struggling right now. I can help them grow."

PARENTS
"I know what actions to take to help my child on her path to success. I can be a better champion for her."

AFTERSCHOOL PARTNERS
"I know what's happening with these kids before 3:00 p.m. I can help families and communities create more opportunities for students to succeed."

SCHOOL LEADERS
"I know what's working and what isn't in my school. I can make timely decisions and make sure resources support great teaching and improve student learning."

Piece by piece, this ideal is becoming a reality for students. But how can we complete the picture for all students? See DQC's *Time to Act: Making Data Work for Students* for a roadmap to how states can foster this change.

DQC DATA QUALITY CAMPAIGN

Who Uses Student Data?

Effective Data Use: State Progress

10 Actions to Ensure Effective Data Use: 2005 → 2011

Effective Data Use: State Progress

2011

2014

Legend:
- 0 Actions
- 1–3 Actions
- 4–5 Actions
- 6–7 Actions
- 8–9 Actions
- 10 Actions
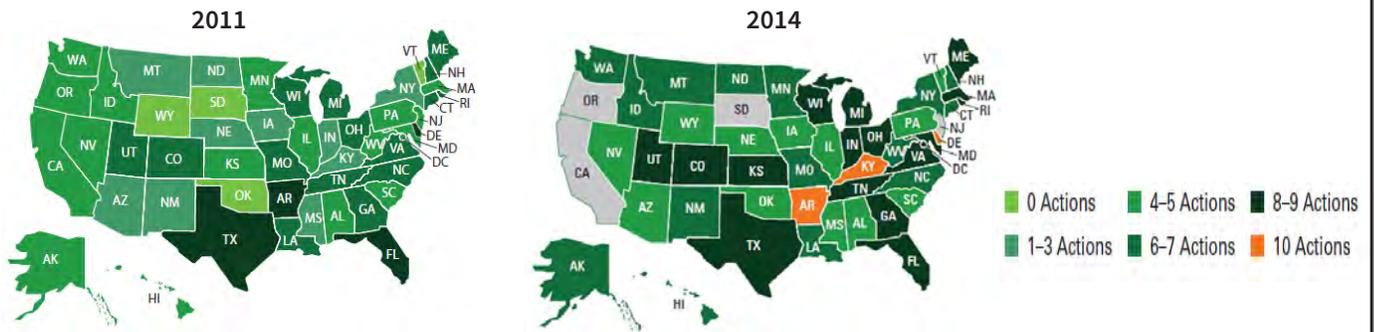
10 Actions to Ensure Effective Data Use: 2011 → 2014

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DATA QUALITY CAMPAIGN

As more education data becomes accessible and is being used, new questions about privacy arise.

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A Journey Through Time

FERPA

1974

COPPA

1998

2005 — 1st round of SLDS grants

2008 — New FERPA regulations

2011 — New FERPA regulations

2012 — 47 states, DC & PR have SLDS grants

Privacy Makes Headlines

2013

2015 — New federal privacy legislation introduced

2014 State Legislative Activity

110 bills related to student data privacy in **36** states.

27 laws passed in **20** states.

2014 Student Data Privacy Legislation
110 bills in 36 states; 27 laws in 20 states

state introduced legislation

state passed law

(updated 5/11/16)

DQC DATA QUALITY CAMPAIGN

2015 State Legislative Activity

188 bills related to student data privacy in **47** states.

28 laws passed in **15** states.

2015 Student Data Privacy Legislation
188 bills in 47 states; 28 laws in 15 states

state introduced legislation | state passed law

(updated 5/11/16)

2016 State Legislative Activity

112 bills related to student data privacy in **34** states.

17 laws passed in **14** states.

2016 Student Data Privacy Legislation
112 bills in 34 states; 17 laws in 14 states

state introduced legislation | state passed law

(updated 8/31/16)

Summary of State Legislative Activity

410 bills related to student data privacy in **49** states.

72 laws passed in **36** states.

2014-2016 Student Data Privacy Legislation
410 bills in 49 states; 72 laws have passed in 36 states

state introduced legislation ■ state passed law

Student Data Privacy: State Legislative Trends

2014: regulating government collection of student data

2015: regulating student data collection by education technology providers

2016: continuing to govern service providers and revisiting existing privacy laws

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Measure What Matters:

Be clear about what you want to achieve for students and have the data to ensure it gets done.

What Federal Policymakers Should Do

- Conduct a review of federal data collections and sunset all unnecessary or duplicative collections.

Make Data Use Possible:

Provide teachers and leaders the flexibility, training, and support they need to answer their questions and take action.

What Federal Policymakers Should Do

- Get your data house in order and better align regulations, laws, communications, and messaging across agencies.

- Break down federal data silos.

Be Transparent and Earn Trust:

Ensure that every community understands how its schools and students are doing, why data is valuable, and how it is protected and used.

What Federal Policymakers Should Do

- Produce timely public indicators based on stakeholders' questions.

- Promote greater federal transparency to help families understand how the federal government collects, uses, and protects data.

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Guarantee Access and Protect Privacy:

Provide teachers and parents timely information on their students and make sure it is kept safe.

What Federal Policymakers Should Do

- Build capacity at the federal level to use data effectively while safeguarding privacy.

  - Expand the ability of the Department of Education to provide expert guidance and help to the field (support the Privacy Technical Assistance Center)

- Provide incentives for states and districts to build capacity for effective data use.

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DATA QUALITY
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Commission on Evidence-Based Policymaking: Privacy Perspectives

Marc Rotenberg
National Academies of Science
Washington, DC
September 9, 2016

Brief Background

EPIC is an "evidence-based" policy organization. We rely on government statistics and reports for our work.

EPIC also supports the development of new laws and new techniques that enable the use of data while minimizing privacy risks

Served on many expert panels - AAAS, ABA, IOM, IWG, NAS, OECD - with goal of promoting appropriate policy responses to emerging challenges. Currently working with NAS on "Big Data and Privacy" and OECD on Risk Assessment

Speaking for EPIC and not for NAS or OECD

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Case Study I: Federal Wiretap Reports

In 1968 Congress created legal authority for electronic surveillance in the United States

Multiple safeguards were established - criminal predicates, application requirements, internal accounting, judicial review and public reporting

The reporting requirement provides a common data set that allows researchers, advocates, and government officials to describe the scope of lawful electronic surveillance in the United States

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Wiretap Report 2015

Last updated on December 31, 2015

This report covers intercepts concluded between January 1, 2015, and December 31, 2015, and provides supplementary information on arrests and convictions resulting from intercepts concluded in prior years.

Forty-eight jurisdictions (the federal government, the District of Columbia, the Virgin Islands, Puerto Rico, and 44 states) currently have laws that authorize courts to issue orders permitting wire, oral, or electronic surveillance. Table 1 shows that a total of 28 jurisdictions reported using at least one of these types of surveillance as an investigative tool during 2015.

epic.org | ELECTRONIC PRIVACY INFORMATION CENTER

Policy Issues   Our Work   Press   EPIC Bookstore

Title III Wiretap Orders - Graphs

Title III Wiretap Orders 1968-2015
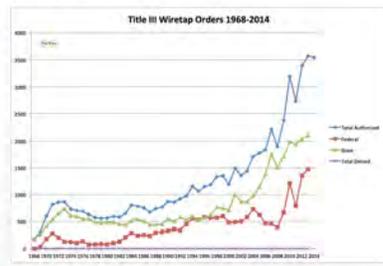
Federal Wiretap Reports: Key Conclusions

Stable over time. Mandated by law, not voluntary or dependent on private sector data sources, such as "transparency reports"

Methodology is transparent and data is provable

No privacy risk (no PII collected or published)

Ongoing relevance to policy debate (crypto regulations, Apple v. FBI)

Model for evidence-based policy

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Case Study II: NOAA

Weather forecasting, climate data, and satellite imagery

NOAA data supports fishing, shipping, agriculture, and many associated industries

NOAA data also supports mission critical functions, emergency services, and local and state government

No PII!

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National Oceanic and Atmospheric Administration
U.S. Department of Commerce

Search NOAA sites

‹ OUR WORK

Weather

NOAA's National Weather Service is building a Weather-Ready Nation by providing better information for better decisions to save lives and livelihoods

NOAA
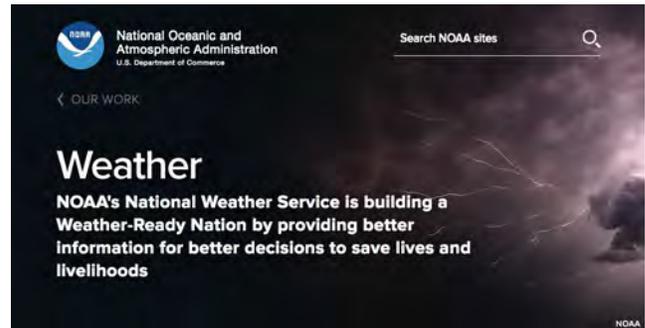
Personally Identifiable Information (PII)

PII is core concept in modern privacy law.

PII = "Data that identifies or could identify a particular person"

PII creates obligations, "Fair Information Practices." Obligations are asymmetric. Custodian of data has responsibilities. Data subjects have rights.

Goal is to ensure fairness, transparency, accuracy, and accountability

New techniques may expand boundaries of PII but that does not diminish significance of concept. As PII becomes more readily identified, responsibilities necessarily follow.

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Privacy Enhancing Techniques (PETs)

"Techniques that minimize or eliminate the collection of PII" (Burkhart 1998, Rotenberg 2000)

PETs should be robust, scaleable and provable

We support PETs but have also challenged poorly designed PETs (MD5, Ask Eraser, SnapChat)

CEBP could encourage the development of PETs

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Risk of PII Collection

Data breach, identity theft, financial fraud

Identity theft is top consumer concern, 2001-2014 (FTC 2015)

Risks are increasing (voting systems)

Collection of PII poses risk to institutions and to data subjects

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Data Minimization

Video Privacy Protection Act (1988)

18 U.S.C. 2710 (e)Destruction of Old Records.—

"A person subject to this section shall destroy personally identifiable information as soon as practicable, but no later than one year from the date the information is no longer necessary for the purpose for which it was collected and there are no pending requests or orders for access to such information under subsection (b)(2) or (c)(2) or pursuant to a court order."

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Hard Problems Ahead

Data is increasingly dynamic. It is more difficult to control use, anticipate outcomes, assess risks.

Data is also increasingly under attack from malicious actors. Even well intended data collection and analysis may end badly.

Increasing focus on "Big Data," AI, and Data Analytics ("One Hundred Year Study on AI," White House Report on AI)

Use of data for profiling and prediction has direct impact on individuals, even when not PII.

"Algorithmic transparency"

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Data is the basis of research, innovation, economic growth, and informed policy decisions,

14

Data is also the basis for profiling, tracking, segmentation, and discrimination

15

Privacy protections for data are necessary to maximize the benefits and minimize the risks.

16

References
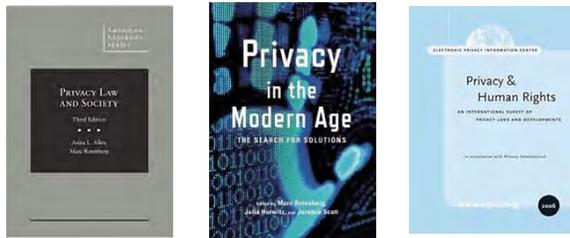
epic.org/bookstore

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Notes on National Data Center (1965)

Proposal inspired by social scientists, rise of automation, opportunity to gather and analyze data collected by government agencies

Tremendous backlash (Packard, "The Naked Society," a NY Times bestseller)

Led to passage of Privacy Act of 1974 => compartmentalized records in federal agencies, established limitations on data matching

Particular concern about record linkages => additional limitations on collection and use of SSN

Renewed concerns in US about mass surveillance after 2013 disclosures of NSA program (led to end of domestic bulk telephone record collection)

EU countries have centralized record systems, but also have stronger laws for data protection

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Privacy and Innovation: "Shifting the Curve"

A = Inefficient outcome
B = Efficient outcome
C = Innovative outcome

"Privacy Enhancing Techniques (PETs)"

Use of PII

P_1

P_2

Protection of PII
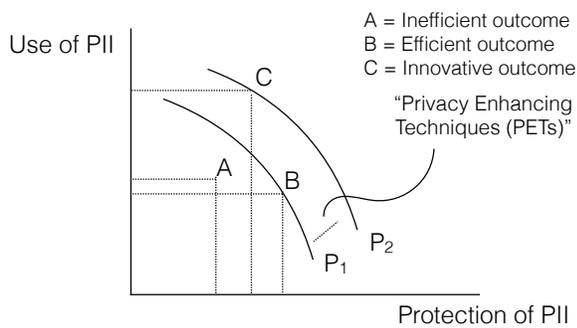
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Confidential Information Protection and Statistical Efficiency Act
(CIPSEA)

Katherine K. Wallman
Chief Statistician
U.S. Office of Management and Budget

September 9, 2016

1

Overview

- What does CIPSEA accomplish?
- Who can use CIPSEA?
- What does CIPSEA look like in practice?
- How successful has CIPSEA been?

2

Purpose of CIPSEA

- Why we need CIPSEA
  - Protection
  - Efficiency
- History of CIPSEA
  - Challenges despite consensus and work left undone

3

Who can use CIPSEA?

- Statistical Agencies
- Recognized Statistical Units
- Others
  - Directly acquired data
  - Through agreement with a statistical agency
- Applies any time an agency 'acquires' data for exclusively statistical purposes, not just surveys

4

CIPSEA in Practice

- Policies
  - Minimize risk of disclosure
  - Severe penalties for willful disclosure
- Procedures
  - Staff training
  - Physical and Information Systems Security (FISMA, off-site inspections, etc.)
  - Disclosure review

5

How Effective is CIPSEA?

- Disclosure prevention
- Response rates
- Participation from agencies

6

November 4, 2016 Meeting

Tanya Beer

Evaluation Demand and Capacity in the Social Sector

THE EVALUATION ROUNDTABLE

Center for
Evaluation Innovation

Setting the Stage: Social Sector Resources

>86,000 foundations

have $715 Billion in Assets

And give
~$52 Billion
annually

Largest 1,000 Foundations

Give $22.4 B annually to nonprofits in...

22%		Health
22%		Education
16%		Human Services
12%		Pub. Affairs/Society Benefit
10%		Arts & Culture
7%		Environment & Animals
11%		Other

From the Foundation Center:
Key Facts on U.S. Foundations (2014)

Trends in Philanthropic & Nonprofit Work	Trends in Evaluation & Data Collection
Emphasis on outcomes and effectiveness	Growing demand for evaluation to support decision-making
Focus on complex problem solving and systems change	Need for systems-level data and new approaches to evidence building
Interest in scaling in partnership with the public and private sector	Opportunities for cross-sector collaboration on evaluation
Disproportionate attention to performance metrics	Limited bandwidth left for understanding and building evidence
Limited capacity to use evaluation to make better decisions	Experimenting with staffing and processes to support better use

Evaluation Capacity Challenges

50% of funders have evaluation staff

8% of nonprofits have evaluation staff

Nonprofits: Percent of annual budget spent on evaluation

10% or more ------- **4%** of organizations
5-10% ------- **8%** of organizations
2-5% ------- **25%** of organizations
Less than **2%** ------- **43%** of organizations
0% ------- **16%** of organizations

↗**84%** of organizations spend less than 5% on evaluation

Most foundations fund evaluations for less than 10% of their individual grants

From *State of Evaluation* (Innovation Network, 2016), and *Benchmarking Foundation Evaluation Practices* (Center for Evaluation Innovation and Center for Effective Philanthropy, 2016)

How Evaluative Information is Used

	NONPROFITS		FUNDERS	
Report to Board of Directors	94%		87%	
Report to **funders** / Report to **grantees**	93%		45%	
Plan/revise program or initiatives	91%		51%	
Plan/revise general strategies	86%		65%	
Advocacy or influence	57%		20%	
Share findings with peers	52%		49%	
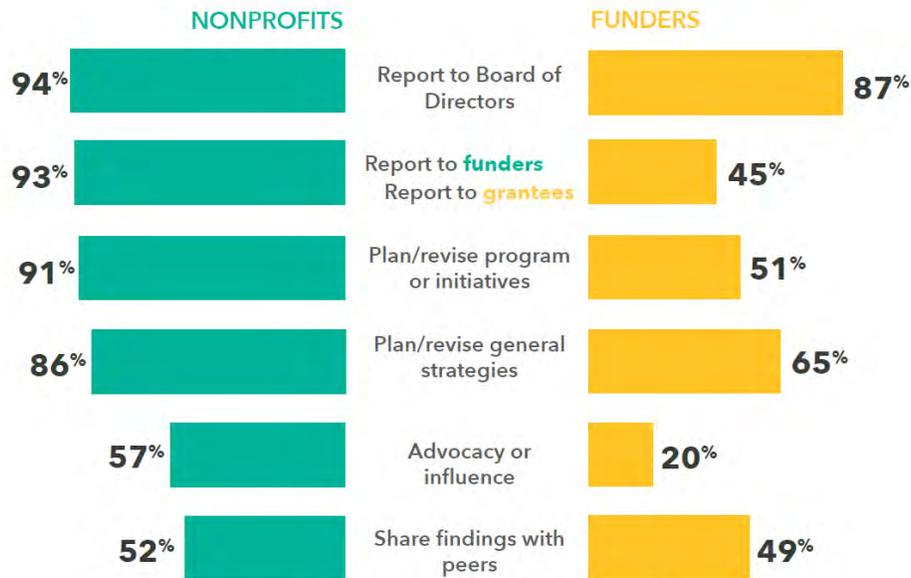
Source: McCray (2014) Is Grantmaking Getting Smarter?

From *State of Evaluation* (Innovation Network, 2016), and *Benchmarking Foundation Evaluation Practices* (Center for Evaluation Innovation and Center for Effective Philanthropy, 2016)

Audiences for Nonprofit Evaluation

	% NOT AN AUDIENCE	% PRIMARY AUDIENCE	% SECONDARY AUDIENCE
Executive Staff (CEO/ED)	3%	85%	11%
Board of Directors	3%	76%	21%
Funders	4%	70%	25%
Non-executive Staff	13%	40%	46%
Clients	32%	29%	37%
Policymakers	37%	23%	37%
Peer Organizations	38%	8%	52%
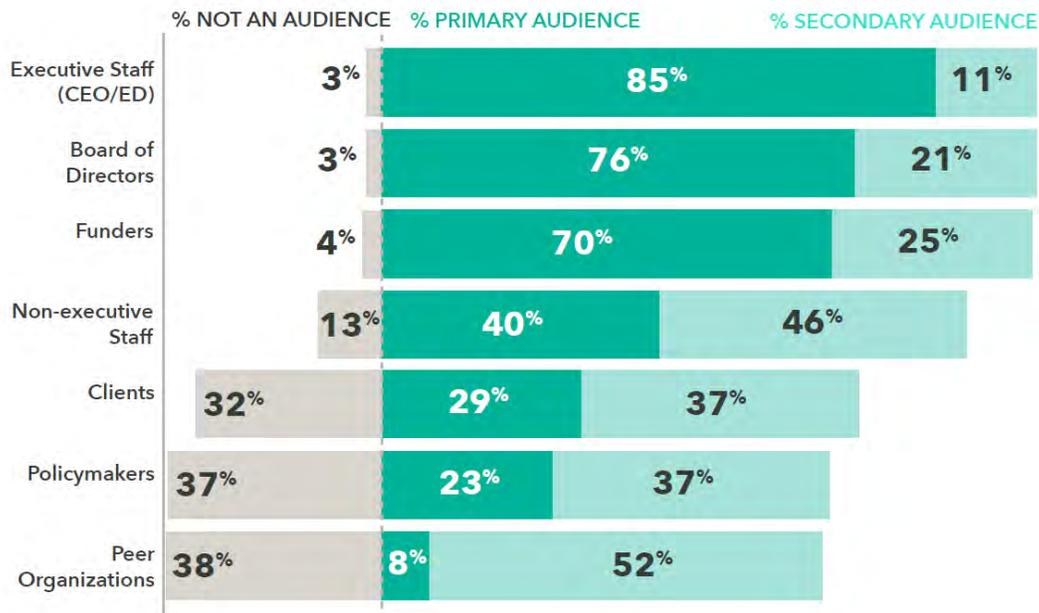
From *State of Evaluation* (Innovation Network, 2016)

Evidence Commission
A Funder's Perspective DRAFT

November 4, 2016

_{THE} Edna McConnell
Clark FOUNDATION

Overview

The Edna McConnell Clark Foundation has over a decade and a half's experience helping nonprofits use data and build evidence of their programs' effectiveness and improve and expand them to lift the life prospects of greater numbers of economically disadvantaged youth in the U.S. Since 2007, we have leveraged $155 million of our own resources to help 16 grantees secure nearly $487 million in additional private and public funding.

Our grantees and the communities, families and young people they serve have benefited from the increased emphasis that OMB, federal agencies and Congress have placed on evidence-based programs.

We are proud to have partnered with the federal government in the Social Innovation Fund, an initiative enlisting private intermediaries to help expand evidence-based programs.

We are pleased that the Evidence Commission is advancing the "what works" agenda by setting clear standards and expectations for the use of data and evidence in policy and procurement.

And we are honored by the opportunity to share our thoughts and recommendations for your consideration.

Constraints for Using & Building Evidence

EMCF has learned from long experience and recent interviews of over 80 thought leaders that despite increased demand for evidence-based programs, the current approach to **"evidence building"** – amassing empirical data measuring impact, ideally through third-party evaluation – is often too slow, expensive, incremental and insufficient for **non profits and their funders** due to current limitations**.**

- Funding for evidence building and supportive capacities (technology, data, and policy) is limited and too often in the hands of third parties. Nonprofits are forced to take a "pay as you go" approach rather than follow consistent and embedded practice*.*

- The current roles and incentives of evaluation researchers are not well aligned with practitioners' needs or local context. *Too often non profit providers are the "caboose" of the evidence-building train when they should be the engine.*

- Policy-makers' demand for programs that work runs ahead of nonprofits' ability to deliver such evidence-based programs. *We need a greater supply of organizations and leaders equipped to build and use evidence-based solutions.*

- While policy-makers, government and funders are demanding evidence, they seldom understand the operational, data and funding realities that nonprofits face *AND* they do not use such evidence consistently to set policy or award contracts.

In sum, limited innovation in evaluation, constrained data access and weak links between evidence, public policy, implementation, and financial sustainability constrict the pipeline of evidence-based programs worthy and ready for large-scale investments by philanthropy, government, and not-for-profits.

The Edna McConnell Clark Foundation   **2**

Potential Solutions

Drawing on our grantmaking experience and recent research, we offer the following ideas for consideration by the Evidence Commission.

- Service providers are often on the front line of implementing federal programs, but they lack a close connection to government that would make it easier for them to innovate, contribute to, take advantage of, and execute evidence-based policy decisions
  - Encourage better understanding of the **role and magnitude of the private providers' network** in the development and delivery of evidence-based practices.
    - Alliance for Strong Families and Communities estimates 109,515 human services agencies.
    - $750m budget for services in Child Welfare in NYC alone for preventive and foster care service procured through the private sector.
    - Wisconsin has >100 agencies providing foster care
  - Consider a platform for engaging nonprofits and educating the field on the **process of evidence building** as a way to extend and expand beyond its statutory lifetime the Commission's efforts to reach this important sector.

- Support efforts to promote, prioritize and **incentivize the use of evidence in procurement.** Help ensure a clear and unambiguous link of funding to the building & use outcomes.
  - Use evidence to accurately match programs to the needs of target populations, avoiding one-size-fits-all thinking.
  - Support efforts to promote providers' **evidence building & outcomes, not just compliance.**

- Set clear **evidence and data standards and requirements** that can be shared across government and the private sector.

- Remove **barriers to accessing federal, state and local data** and **promote the linkage and aggregation of data by all stakeholders**.
  - Service providers need to access data from various public programs (including, but not limited to, the programs to which they may be directly connected) in order to tailor and track the outcomes of interventions for the communities they serve.
  - Pooled data creates healthy, affordable comparison groups that facilitate evaluation and learning.

The Edna McConnell Clark Foundation   **3**

Partners in Building Evidence

The Evidence Commission can encourage both public and private funders to support the "what works" agenda in the following ways:

- Fund data collection, evaluation, and learning as ongoing **standard operating procedure.** Evidence building is a continuous rather than intermittent, one-study-at-a-time process. Far from overhead, it is integral to a nonprofit's success and requires investment in:
  - Talent (leadership, data scientists, analysts, evaluators)
  - Technology and tools
  - Strategic evaluation planning

- Build or buy **the capacity to use data** to generate evidence, and ensure that service providers and communities have access to these assets.

- Foster a better **understanding and use of different levels of evidence** and **prioritize investment decisions based on data and evidence**.
  - Entry evidence reviews
  - Clearinghouses
  - Inform and align policy priorities with federal data and evidence standards

- Use data to identify and then **fund gaps in evidence** where it is critically needed to address policy priorities.

- Incentivize **innovation of less costly tools and more timely approaches** to evaluation.

- Understand where federal and state government is constrained and leverage philanthropy to **expand the pipeline** of policy-relevant evidence-based programs.

- **Hold researchers and technical assistance providers accountable** for designing evaluations appropriate to the stage of organizational development and the capacity of nonprofits and to the communities they serve.

The Edna McConnell Clark Foundation   **4**

Statement of
Adam Gamoran
President, William T. Grant Foundation
New York, NY

To the
Commission on Evidence-Based Policymaking
Washington, DC

Panel on
"Non-Governmental Demand for Evaluation: Capacity to Support Public Good Activities"

November 4, 2016

Adan Gamoran
Statement to the Commission on Evidence-Based Policymaking
Panel: "Non-Governmental Demand for Evaluation: Capacity to Support Public Good Activities"
November 4, 2016.

Thank you for the opportunity to speak today about one of our nation's most vexing challenges: serving the public good by making smart policy decisions using data that our government already collects.[1] The Commission on Evidence-Based Policymaking offers a rare opportunity to overcome significant barriers that prevent us from achieving this goal. My aim is to provide a non-governmental perspective on two key issues facing the Commission:

1. What data are needed to support public good activities?
2. What steps are needed to build the capacity to *use* data and create the *evidence* required for better policy decisions?

The William T. Grant Foundation, which I lead, supports social science research to improve the lives of young people ages 5 – 25 in the United States. Within this overall mission, we have two areas of focus. The first is to support research on reducing inequality among young people, and the second is to support research on improving the use of research evidence in policy and practice. These priorities would be greatly aided if the Commission were able to accomplish its goals.

As background to my remarks, I call your attention to the legislation that established the Commission. Your primary charge is to determine how agencies of the federal government can share and link administrative data sets, and accomplishing that aim would be a significant step forward. However, a complete reading of your mandate suggests you need not stop there. The Commission is uniquely positioned to consider how the federal government can use data to create the evidence required to achieve our policy aims, as well as how to create the infrastructure to support the use of evidence in policymaking. In other words, be the *evidence commission*, not just the *data commission*.

This broader approach is fully within your charge, and you can meet the challenge it sets forth by prioritizing its call to show how data "may be integrated and made available to facilitate program evaluation, continuous improvement, policy-relevant research, and cost-benefit analyses by qualified researchers and institutions," and by emphasizing "how data and results of research can be used to inform program administrators and policymakers to improve program design."[2] It is principally these elements of your charge to which my remarks offer a response.

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[1] My remarks draw on recent writing from the William T. Grant Foundation and the Forum for Youth Investment, including the following:
William T. Grant Foundation and Forum for Youth Investment. (2016). *From data to evidence to policy*. New York: William T. Grant Foundation. Available at:
http://wtgrantfoundation.org/library/uploads/2016/08/From-Data-to-Evidence-to-Policy.pdf
Gamoran, A., & Ferber, T. (2016). Who would have thought: Bipartisan policymaking through evidence. *The Hill*, August 8. Available at: http://thehill.com/blogs/congress-blog/politics/290684-who-would-have-thought-bipartisan-policymaking-through-evidence
DuMont, K., & Smeeding, T. M. (2016). Using data to produce useful research evidence. *The Digest*, *Issue 1.* New York: William T. Grant Foundation. Available at: http://wtgrantfoundation.org/digest/using-data-produce-research-evidence
[2] See Section 4, "Duties of the Commission," parts (a)(1) and (b)(2)(I), in *Evidence-Based Policymaking Commission Act of 2016*, H.R. 1831. Available at: https://www.congress.gov/114/bills/hr1831/BILLS-114hr1831eas.pdf

Data Needs: Multiple Purposes of Linked Administrative Data

Sharing and linking administrative data is necessary but will not suffice to achieve the broader goals of the Commission. Rather, data must be deployed in research and evaluation to create research evidence that informs policymaking. This would optimize the use of data we already collect to make smarter policy decisions. By "research evidence" I mean evidence derived from applying systematic methods and analyses to address a predefined question or hypothesis. Examples include descriptive studies, intervention studies and evaluations, meta-analyses, and studies on cost effectiveness. Policy insights can emerge from a variety of types of research studies, and, consequently, linked administrative data has multiple purposes and offers diverse contributions to policymaking. As a private funder of research intended to improve the lives of young people in the U.S., the Foundation has identified a range of cases for which linked administrative data can address critical questions. Among these are rigorous evaluations of program impact, both experimental and quasi-experimental; program improvement efforts, including performance management; and descriptive studies that contribute to policy formation.

Rigorous Evaluations of Program Impact

As is widely discussed, administrative data can be a powerful tool when attached to randomized evaluations of program impact. At an earlier meeting, the Commission heard from Raj Chetty of Stanford University, who obtained tax data that enabled him to test for long-term effects of the Moving to Opportunity Study. His results overturned previous findings, transforming our understanding of how housing voucher program effects may occur. If such federal data were available to a wider range of researchers, we would have more secure answers to many important questions about program impact. Also frequently mentioned is the value of administrative data for short-cycle randomized trials. Because administrative data are already being collected irrespective of whether a program evaluation is taking place, linking existing data to the evaluation study substantially reduces the cost of the study, and may accelerate its completion and lead to more real-time information on whether programs are meeting their aims. For example, the Laura and John Arnold Foundation has stimulated the research community to pursue this course to take better advantage of data already being collected.[3]

Two randomized experiments that our Foundation is funding — one by Joseph Allen at the University of Virginia and the other by David Yeager at the University of Texas-Austin — use administrative data to assess the impact on academic and social-emotional outcomes of interventions designed to improve young persons' social psychological functioning. These investigators face the laborious task of collecting administrative records from each school, one school at a time. Particularly in the case of the Yeager study, which includes nearly 100 schools, this task demands countless hours from both researchers and school personnel, and great expense to the funders. Yet much of the data — notably the academic outcomes — are reported up to the state and even the federal government, and if there were a data linkage system in place, they could be gathered much more efficiently. Indeed, this is one of the reasons we funded the Stanford Educational Data Archive, which includes test scores from all 50 states calibrated on a common scale.[4] But since the National Center for Education Statistics that supplied these data has no provision for releasing individual-level data from state assessments, the data are aggregated to the level of grades within schools, which constrains their utility for some purposes.

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[3] See: http://www.arnoldfoundation.org/laura-and-john-arnold-foundation-announces-expanded-funding-for-low-cost-randomized-controlled-trials-to-drive-effective-social-spending/
[4] See: https://cepa.stanford.edu/seda/overview

Administrative data also have great value for quasi-experimental studies, which can often be conducted without additional data beyond the administrative records. Professor Chetty has already spoken to the Commission about how his analysis of tax records for five million geographically mobile American families revealed the importance of neighborhood quality for economic mobility. In a study funded by our Foundation, Cornell economist Michael Lovenheim and his colleagues were able to connect Texas state administrative data from K12 education, higher education, and employment and, using a difference-in-difference design that permits causal inference, test the effects of two university scholarship programs for high-achieving, low-income youth on college and workforce outcomes.[5] In another study we are currently funding, researchers at Duke University have cleverly used job loss information from North Carolina as a statistical instrument to test the effects of economic and family changes on children's academic development.[6] This research was only possible because the investigators were able to link administrative data from the state education and employment systems.

It is no accident that these two examples come from Texas and North Carolina. Along with Florida, these states have the most efficient systems for external researchers to obtain access to statewide education data. Consequently, much of what we know about federal and state education policy effects, particularly those based on rigorous quasi-experimental methods, comes from these three states, and we cannot be certain about how findings from these states generalize to other states. Ironically, thanks to federal data requirements under No Child Left Behind and subsequent federal incentives to states, all states now collect a large volume of education data, with students linked over time and to their schools and, in most cases, to their teachers. However, in far too many states the data languish unused except for compliance reports under federal law. These data are an untapped treasure the Commission could help uncover by advocating for federal guidelines that would facilitate the research use of state education data while protecting the privacy of personal information as Texas, North Carolina, and Florida have carefully done.

Program Improvement

Many, and perhaps most, experimental and quasi-experimental studies focus on a narrow question: What is the impact of a program on a particular outcome? Increasingly, however, our grantees recognize that the answer to this question is of limited policy value. Although it indicates whether a program is working or not, it does not say what works ***for whom*** and under ***what circumstances***, nor does it say what steps may be undertaken to achieve the desired results. These questions are important because single evaluations rarely suffice to make decisions about program continuation or discontinuation. Instead, they are most useful if they point the way towards improvement. As Ron Haskins and Greg Margolis have explained, "An important part of a comprehensive, evidence-based strategy will be to continue funding programs that initially receive disappointing evaluations. Part of the federal evidence-based culture should be that federal agencies will work with programs and continue funding them as long as they are using evidence to improve their outcomes and are showing some progress."[7]

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[5] Andrews, R. J., Imberman, S. A., & Lovenheim, M. F. (2016). Recruiting and supporting low-income, high-achieving students at flagship universities. **NBER Working Paper No. 17104.** Cambridge, MA: National Bureau of Economic Research.

[6] Ananat, E. O., Gassman-Pines, A., Francis, D. V., & Gibson-Davis, C. M. (2011). Children left behind: The effect of statewide job loss on student achievement. **NBER Working Paper No. 22260.** Cambridge, MA: National Bureau of Economic Research.

[7] Haskins, R., & Margolis, G. (2015). ***Show me the evidence: Obama's fight for rigor and results in social policy.*** Washington, DC: Brookings Institution Press, p. 235.

Program improvement cannot happen without data about when and why a program works well or struggles. Some of our recent grants have supported methodological work to better understand treatment effect heterogeneity, that is, differences in how the same program may work differently for different people or in different places.[8] These technical advances, however, rest on the availability of data to identify conditions that may be related to heterogeneity. If randomized trials are often undertaken as "black box" studies — particularly short-cycle randomized trials — administrative data may allow us to peer into the box to see what is actually going on.

On the government side, many are aware of the need for such administrative data, and this was a topic of discussion in a learning community that our Foundation organized for staff of federal evaluation and research agencies. As one participant commented, "research needs to provide more information about community context, implementation, health equity, and costs, as well as info about what facilitated or impeded success." Another elaborated, "on the grant competition side we have been adding requests for researchers to add more on context, but that leads to questions about what question should be asked across studies, what data is cheaply available." The Commission could encourage this work by providing guidelines for federal grantmakers that would strengthen researchers' access to contextual and implementation data, and by calling for agencies to make administrative data available in response to these needs.

Performance management is a tool used for program improvement that relies substantially on administrative data.[9] To assess the outcomes of a government program, however, a federal agency typically requires administrative data that are gathered elsewhere within the government. While current federal law requires agencies to set performance goals, it does not require them to share the data that are needed by other agencies to assess progress towards those goals. The Commission can bolster federal program improvement efforts by recommending policy changes that will support goal setting with data-sharing requirements. For example, laws that require evaluation could specifically require data-sharing agreements.

Policy Formation

A third purpose of linked administrative data is to understand the nature of the challenges facing our nation and to identify possible programs and policies that may address them. For instance, President Obama has declared that income inequality is "the defining challenge of our time."[10] Data that our government already collects, but which are not currently well used, could help us formulate more effective policies to respond to this challenge. Two examples illustrate this point: Linkages between state education records and national surveys can identify ways to reduce educational inequality; and the American Opportunity Study, a national effort to link census, program, and survey data, can yield ways to increase upward mobility on the ladder of economic success.

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[8] Weiss, M. J., Bloom, H. S., & Brock, T. (2015). A conceptual framework for studying the sources of variation in program effects. *Journal of Policy Analysis and Management*, *33*, 778-808; Raudenbush, S. W., & Bloom, H. S. (2015). *Learning about and from variation in program impacts from multisite trials.* Working paper. New York: William T. Grant Foundation.

[9] Metzenbaum, S. H., & Shea, R. (2016). *Performance accountability, evidence, and improvement: Reflections and recommendations to the next administration*. Washington, DC: National Academy of Public Administration and The Volcker Alliance.

[10] See: https://www.whitehouse.gov/the-press-office/2013/12/04/remarks-president-economic-mobility

Linkages between state education records and national education surveys. Educational inequality is a fundamental aspect of broader inequities across our nation, so reducing educational inequality is an important goal. Evidence about educational inequality comes from national surveys as well as from state administrative records. Linking the two sources of data would offer an especially powerful tool for crafting effective policies. While state data contain valuable information about the performance of students, teachers, and schools, they typically lack the contextual information needed to understand program and policy effects. Longitudinal surveys, by contrast, often have rich contextual information but lack repeated data on student outcomes, and often lack detailed information on teachers and course enrollment. Linking the two data sources would strengthen the evidence offered by each.[11] In particular, linking state data to in-depth longitudinal surveys carried out by the National Center for Education Statistics (NCES) would allow a much richer exploration of policy effects within and among states.

During the Obama administration, NCES officials negotiated with ten state education agencies to prepare to link a national longitudinal cohort study of high school students (a common type of NCES survey) with state education records. NCES did its part by oversampling students in each of the ten states so the linked samples would be representative of each state and large enough to test policy-relevant hypotheses. But as I have written elsewhere, "ultimately not a single state provided its data for linkage with the national survey. Despite agreement at the political level, NCES and its state counterparts were unable to resolve the bureaucratic barriers to linking state and federal data."[12] This unfulfilled promise is ironic because the state longitudinal data sets were largely built with federal grants to states, yet the federal government failed to use its leverage to compel or even encourage states to make their data available for linkage. The Commission could address this challenge by recommending legislative or administrative language that helps states understand the value for their own decision-making, as well as for achieving national goals, of connecting their data systems to national data with in-depth information about family background, students' experiences within schools, school context, and other conditions relevant to policy formation and outcomes.

The American Opportunity Study. As David Grusky, Tim Smeeding, and Matt Snipp have written, given the high importance that Americans attach to equal opportunity, one might expect us to have a robust system for monitoring social mobility and its responsiveness to policy changes.[13] By social mobility, we mean the chances that persons born into disadvantage can rise above their circumstances of origin to achieve educational and occupational success as adults. Despite the salience of this notion, our ability to monitor changes in mobility is weak. The last major survey of U.S. mobility, the second study of "Occupational Changes in a Generation," occurred over 40 years ago. Today, however, a standalone survey is not needed to gauge patterns of mobility across generations. In fact, we can do so even more effectively than in the past by linking data from the U.S. census to federal administrative data and to existing national surveys that are already being conducted. Grusky, Smeeding, Snipp, and others have proposed that a new American Opportunity Study (AOS) can be accomplished without the need for a new survey, by linking existing data. Key components of the AOS include decennial census records,

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[11] Loeb, S. (2015). *Linking NCES surveys to administrative data*. Paper presented at the Workshop to Examine Current and Potential Uses of NCES Longitudinal Surveys by the Education Research Community, Washington, DC. Available at:
http://www.naeducation.org/cs/groups/naedsite/documents/webpage/naed_160699.pdf
[12] Gamoran, A. (2016). Towards the next generation of U.S. longitudinal surveys: Ideas from researchers for the National Center for Education Statistics. *AERA Open, 2* (2) 1-8.
[13] Grusky, D. B., Smeeding, T. S., & Snipp, C. M. (2015). A new infrastructure for monitoring social mobility in the United States. *Annals of the American Association of Political and Social Science*, 657, 63-82.

federal tax and employment records, state data from federal programs such as food stamps and unemployment insurance, and national surveys that are already being conducted such as the American Community Survey, the Survey of Income and Program Participation, and others.

The AOS would carry substantial benefits for those wishing to assess mobility trends and to formulate and assess policies that aim to strengthen equal opportunity processes. As the authors explain,

> The United States has an unassembled panel that is standing unused and that, for a relatively small outlay, could be transformed into a major new infrastructural resource in the social sciences. The AOS comes with substantial cost savings and efficiencies, allows the United States to formulate child development and labor market policy using high-quality evidence, and would lead to a renaissance of labor market and mobility research that would almost surely reestablish the United States as a leader in the field.[14]

The AOS would permit more powerful assessments of conditions that foster and reduce inequality in domains such as neighborhoods, family structure, health, justice, education, and veterans' affairs.[15] These assessments would allow formulation of evidence-based policies. When linked to research study samples, the AOS could also support program evaluation in many areas.

Despite the promise of this approach for meeting the inequality challenge that President Obama has called out, substantial barriers remain. Most important, much of the data about program participation resides at the state level, even for programs supported by federal funding. If we wish to know whether our policies are working, we need to know who is participating and what their long-term and even intergenerational trajectories are. We can accomplish this aim by linking program participation data to census and employment records, but only if states cooperate with federal agencies in data sharing. The federal government ought to have leverage in this regard because the programs are federally funded. The Commission could address this challenge by recommending legislative language that would require states to share data on program participation for purposes of research on policy formation and evaluation.

Linking ongoing national surveys to administrative data represents another challenge. I understand that for Census Bureau surveys such as the American Community Survey and the Survey of Income and Program Participation, such linkages are already occurring and data can be analyzed in the secure Federal Statistical Research Data Centers. The Commission may wish to urge other federal agencies and non-governmental research groups to collaborate with the Census Bureau to add additional surveys to this infrastructure.

More broadly, the Commission should aim to standardize and streamline procedures to facilitate linkages among these disparate sources of data, and encourage a bureaucratic/legal environment in which such linkages are viewed as assets. To accomplish this goal, the Commission should provide a framework that articulates the technical requirements, legal standing, and accepted procedures for linking and sharing data across federal agencies and with willing state partners. The framework should specify the different types of data that may be linked, including administrative, survey, and experimental data, and the different purposes of such linkages, including program continuation decisions, program improvement plans, and policy formation.

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[14] Ibid, p. 79.
[15] National Academies of Sciences, Engineering, and Medicine. (2016). *Using linked census, survey, and administrative data to assess longer-term effects of policy*. Proceedings of a workshop in brief. Washington, DC: National Academies of Sciences, Engineering, and Medicine.

The Commission might further recommend a pilot that would begin with specific agencies that, based on the investigations of the Commission, seem best prepared to implement a standardized procedure for linking data and making data accessible to researchers inside and outside of government. With support from the Laura and John Arnold Foundation and in partnership with the U.S. Census Bureau, Chapin Hall at the University of Chicago is sponsoring a series of studies to demonstrate innovative approaches to linking administrative data, and the Commission could look to these studies as examples.

Building Capacity for Using Linked Data to Conduct Research and Inform Policies

Thus far I have discussed the value of administrative data for rigorous evaluations of program impact, program improvement, and policy formation, and I outlined a series of recommendations for improving the linkages among, and access to, these data while protecting privacy. I could choose to conclude my remarks now, and indeed, the Commission could choose to limit its focus to the tasks of linking and sharing administrative data while protecting privacy.

But doing so would not take full advantage of the opportunity at hand. As I noted at the outset, the Commission is uniquely positioned to advance the capacity to support the use of evidence in policymaking. By capacity I am referring to the technological structures, human capital, organizational arrangements, and fiscal investments needed to create and use evidence. These considerations are often an afterthought and therefore under-resourced. Because they are fundamental to the creation of evidence, they demand attention at the outset.

Over the course of my career, I have thought a lot about the capacity required to support the production and use of evidence. Prior to my current role, I directed the Wisconsin Center for Education Research, the oldest and largest university-based education research center in the country. My job was to ensure that we had the structures in place both to generate evidence and connect with those who might use it. In my current role as president of a foundation that funds studies to identify and test strategies to improve the use of research evidence at the federal, state, and local levels, **I am learning continually about the conditions needed to facilitate evidence use. This knowledge has been deepened by my observations of the learning community we facilitated for federal research and evaluation staff. These experiences make clear that capacity is critical for supporting the production of evidence and its use.**

Yet the current capacity to accomplish this goal is limited. In a government-wide survey conducted by the General Accountability Office, only eleven agencies reported "committing resources to obtain evaluations by establishing a central office responsible for evaluation of agency programs, operations, or projects, although only half these offices were reported to have a stable source of funding. Seven agencies reported having a high-level official responsible for oversight of evaluation."[16] The relative scarcity of evaluation offices and funding has consequences: The General Accountability Office reported that "studies of organization or government evaluation capacity have found that it requires analytic expertise and access to credible data as well as organizational support both within and outside the organization to ensure that credible, relevant evaluations are produced and used."[17]

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[16] General Accountability Office. (2014). *Program Evaluation: Some Agencies Reported that Networking, Hiring, and Involving Program Staff Help Build Capacity.* GAO-15-25. Washington, DC: General Accountability Office.
[17] Ibid, p.8.

Based on my experiences outside government and my interactions with those in government, I encourage the Commission to respond to the findings from the General Accountability Office as well as to similar concerns raised in a background paper prepared for the Commission.[18] The Commission can make an essential contribution to the advancement of evidence-based policymaking by recommending specific steps (a) to build the capacity of researchers inside and outside of government to use administrative data to answer policy questions, and (b) to establish partnerships between researchers and policymakers that will increase the likelihood that research evidence permeates the policymaking process.

A Federal Infrastructure for Evidence

The Commission can meet its full mandate by providing guidance on ways that data may be used to create evidence that can inform and shape policy. A stronger infrastructure within the federal government would help build the capacity needed to meet this charge. Such an infrastructure could help ensure that the production and use of evidence remains a high priority for our nation's decision-makers. It could also increase the capacity of individual agencies to produce and use evidence. Moreover, a strong infrastructure could help align efforts across agencies, leading to greater consistency and creating opportunities to take on challenges that require cross-agency collaboration.

The Commission may wish to examine infrastructure supports that are found in various agencies, identify best practices, and recommend their wide adoption. One of our grantees is currently conducting a scan of the existing federal infrastructure for statistics, data, performance improvement, behavioral analytics, and evaluation, and has identified a number of supports that could be strengthened for federal evaluation agencies. Examples of such infrastructure elements include:

- Leadership positions focused on evidence use

Leadership positions such as the special advisor for evidence-based policy in the Office of Management and Budget, and the chief technology officer in the White House Office of Science and Technology policy, serve to focus attention on the use of research evidence and are positioned to align efforts across agencies. One role of such leaders can be to foster collaboration between program and evaluation offices within government agencies to establish trust and make joint decisions about what research and evaluation is to be conducted and how the findings may be used.

- Interagency collaborative bodies

An interagency group that regularly convenes staff members from across government agencies offers opportunities for learning and collaboration. Examples include the federal Chief Information Officers' Council, the Interagency Council on Evaluation Policy, and the Committee on National Statistics of the National Academies. In addition to supporting and formalizing such bodies, more could be done to align efforts across the collaboratives focused on data, statistics, and evaluation.

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[18] Office of Management and Budget. (2016). *Barriers to Using Administrative Data for Evidence Building*. Background paper for the Commission on Evidence-Based Policymaking. Washington, DC: Office of Management and Budget. See: https://www.whitehouse.gov/sites/default/files/omb/mgmt-gpra/barriers_to_using_administrative_data_for_evidence_building.pdf

- A dedicated office for research and evaluation within each agency

The capacity for building and using evidence is highly varied across federal agencies. Some agencies have dedicated research offices, such as the Office of the Assistant Secretary for Planning and Evaluation within Health and Human Services, the Chief Evaluation Office in the Department of Labor, the Office of Policy Development and Research within Housing and Urban Development, and the Institute of Education Sciences within Education. While establishing such offices is important, they must be accompanied by systems that foster communication between research and program offices. As one research leader who participated in our learning community of federal agency staff explained, "When I think about the program offices I collaborate with, and what makes them successful, I think about finding mutual goals, how to help those offices achieve their goals, maintaining regular communication throughout and, most importantly, assuming that there will be different cultures."

- A codified set of principles and practices

As another participant in our learning community of federal agency staff noted, "There isn't much of a blueprint for how federal agencies conduct evaluation." Individual agencies have responded to this need; for example, both the Department of Labor and the Administration on Children and Families in the Department of Health and Human Services have developed policies for evaluation, which is one type of research evidence. A broader set of principles and practices for the creation and use of research evidence is needed, analogous to *Principles and Practices for a Federal Statistical Agency*, which has been influential in setting standards and approaches that statistical agencies across policy domains have adopted. Likewise, the *Common Guidelines for Education Research and Development* have helped the Institute of Education Sciences and the National Science Foundation take similar approaches in understanding and supporting different types of research evidence. Moreover, just as there needs to be an investment in the skills and guidelines for conducting impact evaluations, similar supports should be established for program improvement efforts. The Commission could recommend the development and adoption of principles and practices for evidence creation and use that could become widely shared across federal agencies.

Partnerships for Building and Using Evidence

All too often, evidence about effective or ineffective policies or programs has little bearing on decisions, even when the evidence is rigorous, timely, and accessible. Sustained partnerships between researchers and policymakers can improve the use of research evidence by offering a basis for trust, incentivizing researchers to ask questions that really matter and creating a culture of evidence in the decision-making body. This requires an ongoing dialogue between researchers and decision-makers.

Throughout my remarks I have emphasized the value of administrative data for research and evaluation, and I gave several examples where this approach has been the case. These situations were fortunate; the existing administrative data happened to be what researchers and evaluators needed for their studies. To maximize the use of administrative data for research and evaluation, however, we can be more deliberate in what data are collected. When researchers act as partners to program and policy staff, they can collaborate on decisions about what administrative data to collect. These partnerships can improve the odds that programmatic and policy changes will be informed by the research evidence.

Since 2009, the William T. Grant Foundation has supported studies of the conditions that promote the use of research evidence in policy and practice. Partnerships between researchers and decision-makers emerged as a key finding from this scholarship as a mechanism for getting evidence produced and used. Most common in the domain of education, a research-practice partnership is a sustained structure for facilitating relations of trust and shared goals among university-based researchers and government-based practitioners or policymakers, such as school district officials.[19] The partnership carries two essential benefits. First, because the research agenda within the partnership is co-constructed by researchers and practitioners, the questions pursued in the research are ones whose answers are important to the practitioners. Second, the partnership creates a culture of evidence within the agency, such that looking to evidence before making decisions becomes normative practice. Fundamental to the partnership is the sharing of administrative data that allows researchers to address policy questions of interest to school district decision-makers. Most education partnerships are between universities and school districts, but the state of Tennessee is leading the way by creating a new partnership between Vanderbilt University and the state education agency.

The Commission can improve the use of research evidence by identifying effective partnership models and promoting them across the federal government. Many models of partnership exist, such as those laid out on the website of the William T. Grant Foundation: http://rpp.wtgrantfoundation.org/.

Conclusion and Summary of Recommendations

The Commission on Evidence-Based Policymaking can help researchers outside government contribute more useful research that informs policy by recognizing the variety of purposes for sharing and linking administrative data, and by recommending tools and relationships that strengthen the capacity of policymakers to collaborate with researchers inside and outside of government. A number of recommendations emerge from this account:

Multiple Purposes of Linked Administrative Data

- Advocate for federal guidelines that would facilitate the research use of state data while protecting the privacy of personal information.

- Provide guidelines for federal grantmakers that would strengthen researchers' access to contextual and implementation data, and call for federal agencies to make administrative data available in response to these needs.

- For federal performance management systems, recommend policy changes that support goal-setting with data-sharing requirements.

- Recommend legislative or administrative language that helps states understand the value for their own decision-making as well as for achieving national goals of connecting state data systems to national survey data with in-depth background information.

- Recommend legislative language that would require states to share data on program participation for purposes of research on policy formation and evaluation.

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[19] Turley, R. N. L., & Stevens, C. (2015). Lessons from a school district-university research partnership: The Houston Education Research Collaborative. *Educational Evaluation and Policy Analysis*, *37*, 6S-15S.

- Urge federal agencies and non-governmental research groups that conduct national surveys to collaborate with the Census Bureau to add additional surveys to the Federal Statistical Research Data Center infrastructure.

- Provide a framework that articulates the technical requirements, legal standing, and accepted purposes or linking and sharing data across federal agencies and with willing state partners.

- Recommend a pilot data-sharing effort, perhaps building on the examples of innovative approaches to linking administrative data.

Building Capacity of the Production and Use of Research Evidence

- Examine existing infrastructure supports found in various agencies, identify best practices, and recommend their wider adoption. Examples include leadership positions focused on evidence use; interagency collaborative bodies; dedicated offices for research and evaluation; and codified sets of principles and practices.

- Identify models of partnerships between researchers and policymakers, and promote their use across the federal government. Consider local and state examples as models for the federal level.

These recommendations are ambitious, but the Commission is such a unique opportunity that lofty goals are warranted. As my colleagues have written, "research evidence can improve public policies and programs, but fulfilling that potential will require honest assessments of current initiatives, coming to terms with outsized expectations, and learning ways to improve social interventions and public systems."[20] The Commission is well positioned to drive this work forward, especially if it focuses on the full continuum of activity from sharing and linking data, to using those data to create research evidence, to using that evidence to inform policymaking.

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[20] See: http://wtgrantfoundation.org/tag/evidence-at-the-crossroads

From Data to Evidence to Policy

Statement to the Commission on Evidence-Based Policymaking

ADAM GAMORAN
William T. Grant Foundation
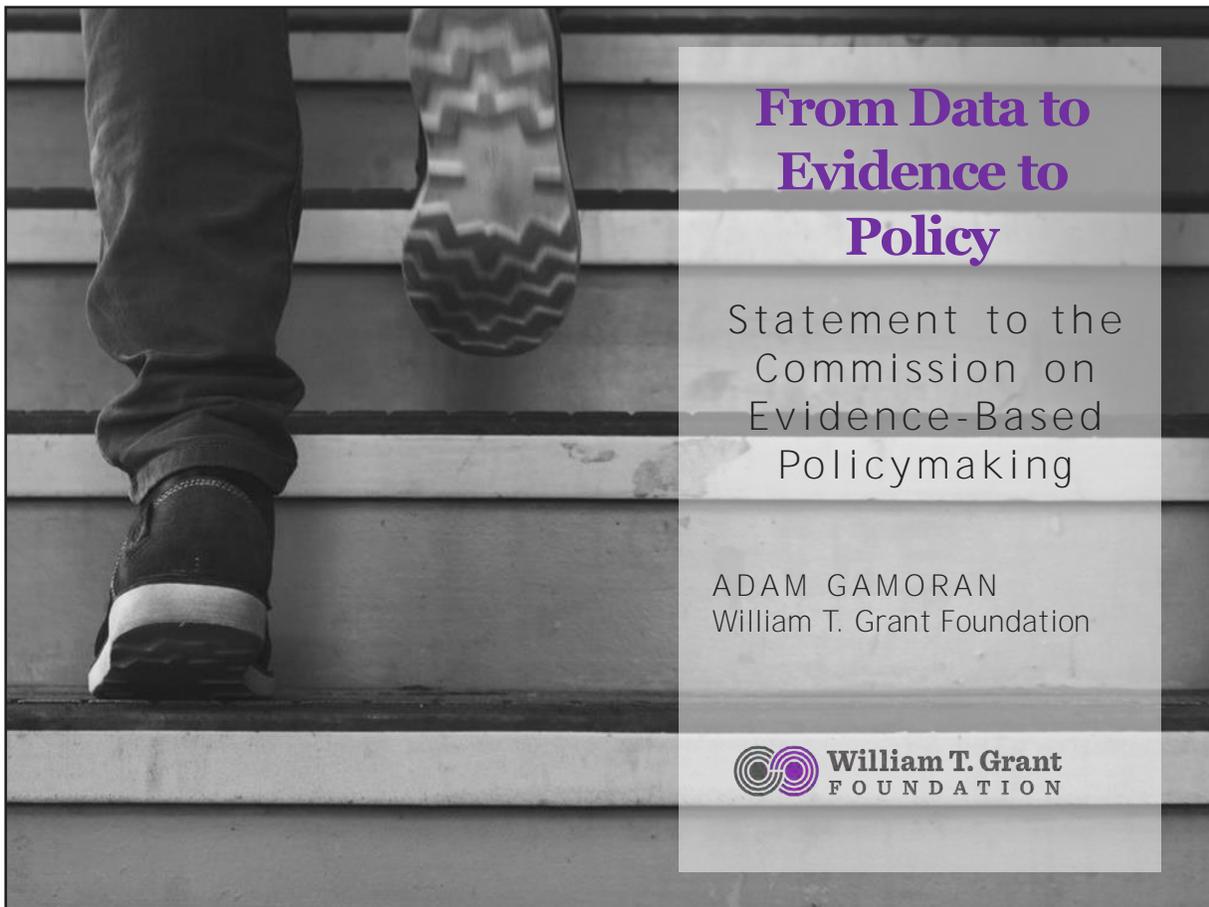
The Challenge:

To serve the public good by making smart policy decisions, using data our government already collects.

1. What data are needed to support public good activities?
2. What steps are needed to build the capacity to *use* data and create the *evidence* required?

William T. Grant FOUNDATION

- ⊙ Supports research to improve the lives of young people.

- ⊙ Areas of focus:
  - ➤ Reducing inequality
  - ➤ Improving the use of research evidence

1930's
1940's
1950's
1960's
1970's
1980's
1990's
2000's
2010's

The Message

Be the Evidence Commission, not just the Data Commission.

Data Needs

Research evidence
- Derived from applying systematic methods and analyses to predefined questions or hypotheses

Multiple purposes of linked administrative data
- Rigorous evaluations of program impact
  - Experimental
  - Quasi-experimental
- Program improvement
- Policy formation

William T. Grant
F O U N D A T I O N

Program Improvement

- What works for whom and under what conditions
  - Calls for data on context, implementation
  - Conditions that facilitate or impede success
  - Guidelines for grantmakers could strengthen access to data for program improvement

- Performance management
  - Support goal setting with data-sharing requirements

William T. Grant
F O U N D A T I O N

Policy Formation: Reducing Inequality

Need to understand the nature of challenges we face, and identify policies that respond

Example: Reducing inequality, the "defining challenge of our time"

William T. Grant
F O U N D A T I O N

Policy Formation: Reducing Inequality

Reducing inequality in education

- Link national education surveys to state education records
  - In a national survey, NCES oversampled 10 states
  - Each state education agency had agreed to link education records to the survey
  - "Not a single state provided its data for linkage with the national survey."
    - Bureaucratic/legal hurdles could not be overcome
    - Even though the state data were largely built with federal grants!

William T. Grant
F O U N D A T I O N

Policy Formation: Reducing Inequality

The American Opportunity Study

- ⟩ A standalone survey no longer needed to gauge social mobility
  - ➤ Link census data, federal tax & employment records, state data from federal programs, and national surveys
  - ➤ Create capacity to understand barriers and supports for social mobility
  - ➤ Allow formulation of evidence-based policies
  - ➤ Link to research samples to support program evaluation
- ⟩ Commission could recommend legislation that would require states to share participation data

William T. Grant
FOUNDATION

Policy Formation: Reducing Inequality

The American Opportunity Study

- ⟩ Link national surveys to administrative data
- ⟩ View linkages as assets
- ⟩ Provide a framework
  - ➤ Specify types of data, including administrative, survey, and experimental data
  - ➤ Indicate purposes of linkages, including program improvement and policy formation
- ⟩ Consider a pilot

William T. Grant
FOUNDATION

Build Capacity

Capacity to use data to create evidence is essential to evidence-based policymaking

- Capacity = technology, expertise, organizational arrangements, & fiscal investments
  - ➢ Often under-resourced
  - ➢ Demand attention at the outset
- Strengthen the federal infrastructure for evidence
- Establish partnerships between researchers and policymakers

William T. Grant
F O U N D A T I O N

Build Capacity

Elements of a federal infrastructure for evidence

- Leadership positions focused on evidence use
- Interagency collaborative bodies
- Dedicated office for research and evaluation within each agency
- Codified sets of principles and practices

William T. Grant
F O U N D A T I O N

Build Capacity

Partnerships for building and using evidence
- ⦿ What is a partnership?
  - ➤ Sustained structure for facilitating trust and shared goals
  - ➤ Common in education between a university and a local or state partner
- ⦿ Benefits of partnerships
  - ➤ Research questions respond to needs of decision-makers
  - ➤ Culture of evidence leads decision-makers to consider evidence in policymaking
- ⦿ See: http://rpp.wtgrantfoundation.org

William T. Grant
FOUNDATION

Be the Evidence Commission

Ambitious but achievable goals

- ⦿ From sharing and linking data, to using data to create evidence, to using evidence to inform policymaking
- ⦿ Will result in smarter policies and greater opportunity for all

William T. Grant
FOUNDATION

Statement of Naomi Goldstein
Deputy Assistant Secretary for Planning, Research, and Evaluation
Administration for Children and Families
U.S. Department of Health and Human Services
to the Evidence-Based Policy-Making Commission

4 November 2016

Dr. Haskins, Dr. Abraham, and Commission members:

Thank you for inviting me to speak with you today. You have a tremendous opportunity to further the creation and use of evidence in the federal government and beyond.

At the HHS Administration for Children and Families, I serve as Deputy Assistant Secretary for Planning, Research, and Evaluation, overseeing a portfolio of grants and contracts to conduct research and evaluation related to ACF programs. I'd like to tell you a bit about how we do our work, highlighting implications for your deliberations, and drawing on ACF's evaluation policy, which establishes five principles to govern our work. These are: rigor, relevance, transparency, independence, and ethics.

I'd like to discuss seven main points:

1.   Data are necessary but not sufficient to create evidence.
2.   Administrative data and ongoing surveys are important resources, but specialized data collected for the purposes of specific evaluations will also continue to be important.
3.   Easier accessibility of administrative data would greatly streamline evaluation activities.
4.   Implementation and descriptive studies are just as important as impact or outcome evaluations, and relevance is just as important as rigor.
5.   Prerequisites for federal evaluation include statutory authority, funding, a skilled federal workforce, and a robust private sector.
6.   Several bureaucratic challenges pose substantial barriers to federal evaluation efforts, in the areas of procurement, information technology and security, and information collection.
7.   The federal evaluation enterprise lacks many elements of the infrastructure that supports and protects the federal statistical system.

One: Data are necessary but not sufficient for evidence that can inform policy and practice.
It is no small thing to collect data that are valid, reliable, relevant, and representative. But data *per se* are not evidence. To turn data into evidence, we must examine them using a sound analysis plan tailored to questions of policy and programmatic interest. In addition, for many questions – especially questions about the impacts of policies or programs – data must be used in the context of an evaluation designed and put into place before the data are collected. A randomized control trial is an obvious example, where the study must assign participants to treatment or control groups before providing services and collecting outcome data.

This point is related to the principle of rigor in ACF's evaluation policy. Rigor means getting as close as we can to the truth. It is not an optional gold seal. Rather, without rigor we may be generating answers that are just plain wrong. ACF's evaluation policy states that we are committed to using the most rigorous methods that are appropriate to the evaluation questions and feasible within budget and other constraints. Rigor is not restricted to impact evaluations, and it is not code for randomized control trials. It is necessary in all types of evaluations, including implementation or process evaluations, descriptive studies, outcome evaluations, and formative evaluations; and in both qualitative and quantitative approaches. Rigor requires ensuring that inferences about cause and effect are well founded (internal validity); requires clarity about the populations, settings, or circumstances to which results can be generalized (external validity); and requires the use of measures that accurately capture the intended information (measurement reliability and validity).

In assessing the effects of programs or services, ACF's policy is to use methods that isolate to the greatest extent possible the impacts of the programs or services from other influences such as trends over time, geographic variation, or pre-existing differences between participants and non-participants. For such causal questions, experimental approaches are preferred. When experimental approaches are not feasible, high-quality quasi-experiments offer an alternative.

Two: Administrative data and ongoing surveys are important resources, but specialized data collected for the purposes of specific evaluations will also continue to be necessary.
Administrative data and data from ongoing surveys are important resources for learning about program effectiveness and informing program improvement. I am confident that the Commission's recommendations will strengthen the value and availability of these types of data. But specialized data collected for the purposes of specific evaluations will also continue to be necessary, for several reasons:
   a. Some types of information may not be included in ongoing surveys or administrative data. For example, consider measures of young children's socio-emotional or cognitive development.
   b. Administrative data may be available to measure experiences or outcomes of program participants, but typically are not available for comparison groups that don't participate in the programs under study.
   c. Administrative data may lack the quality, completeness, and reliability needed for evaluation purposes.
   d. Data from ongoing surveys may not capture samples adequate for specific populations or for addressing specific program- or policy-related questions.
   e. Administrative data and ongoing surveys are sometimes available only after a considerable time lag.

Three: Easier accessibility and improvements in administrative data would greatly streamline evaluation activities.
We don't typically use the availability of data as a starting point for deciding which questions to pursue. But we do take advantage of existing data sources when we can -- for example, using the National

Directory of New Hires or state Unemployment Insurance records to measure the outcomes of an employment-focused intervention. Easier accessibility of administrative data would greatly streamline our efforts. Particularly when we need to gather data from multiple jurisdictions, the cost, time, and effort of developing agreements and carrying out data exchanges can be comparable to the costs of collecting individual survey data.

Although well-integrated administrative data systems suitable for supporting complex evaluations can take years to develop and require broad-based collaboration across many agencies and levels of government, such systems could reduce costs and time to carry out a range of evaluations. Some specific improvements to make administrative data more useful include adoption of common data semantics and incorporating data elements to better allow data linking.

Four: Implementation and descriptive studies are just as important as impact or outcome evaluations, and relevance is just as important as rigor.
Implementation and impact studies together are especially powerful, allowing us not only to understand whether a program had desired impacts, but also to explore what aspects of the program design or implementation may have enhanced or inhibited those impacts. It is also important to understand the characteristics of relevant populations, and the context, so we can learn which types of services work best for different populations or in different settings. All of these types of work provide critical information for scale-up or replication of evidence-based practices, and for efforts to improve the effectiveness of policies and programs.

Pursuing rigor without attending to relevance can mean producing work that is elegant, but useless. To ensure relevance, we take into account many influences in setting evaluation priorities: statutory requirements and Congressional interests; the interests and needs of executive branch staff and leadership; partners such as states, territories, tribes, and local grantees; the populations served; researchers; and other stakeholders. ACF's evaluation policy calls for planning evaluations in concert with the planning of a program or initiative, rather than as an afterthought. To make sure that evaluations are relevant, we aim to build strong partnerships among evaluation staff, program staff, policy-makers and service providers.

Five: Prerequisites for federal evaluation include statutory authority, funding, a skilled federal workforce, and a robust private sector.
In order to conduct evaluation to inform policy and program decision-making, we must have at a minimum both statutory authority and funding. In addition, we need a skilled federal workforce, and a robust private sector to compete for contracts and grants to carry out the work.

We conduct evaluations in those areas where Congress has provided resources and authority to do so. Several large human services programs at ACF lack both authority and resources for this type of work. Further, most of ACF's funding for evaluation is linked to specific programs, with little funding available for cross-cutting studies, although the individuals and families we serve have complex needs that do not

map neatly onto ACF's programmatic structure. While some agencies (such as the Department of Labor) have broad authority to set aside program funds for evaluation, many agencies do not.

Our evaluation policy states that ACF will recruit and maintain an evaluation workforce with training and experience appropriate for planning and overseeing a rigorous evaluation portfolio. To accomplish this, ACF will recruit staff with advanced degrees and experience in a range of relevant disciplines. ACF will provide professional development opportunities so that staff can keep their skills current. The federal evaluation and statistical workforce is populated by experts whose skills, commitment, and integrity impress me every day.

Private organizations, typically research firms and universities, play an essential role in carrying out federal research and evaluation. We rely on them in part for practical reasons. For one thing, Congress often appropriates funds that can be used for grants and contracts, but not for federal staff. In addition, evaluations require specialized staff of different types at different times. An evaluation may need a large complement of survey interviewers one year, and a small staff of data analysts the next year. It is more practical for the government to contract for these tasks than to carry them out internally. In addition to these practical reasons for conducting work extramurally, this practice adds an important element of independence, another principle of our evaluation policy.

ACF aims to ensure that contractors and grantees conducting evaluations have appropriate expertise through emphasizing the capacity for rigor in requests for proposal and funding opportunity announcements. This emphasis entails specifying expectations in the criteria for the competitive selection of grantees and contractors, and engaging reviewers with evaluation expertise.

Six: Several bureaucratic challenges pose substantial barriers to federal evaluation efforts, including requirements related to procurement, information technology and security, and collection of information.
First, some federal contracting rules are severely constricting. For example, it is difficult to gain approval for awarding a contract longer than five years. But many evaluation questions require more than five years to answer. Even more problematic are prohibitions on incremental funding for non-severable contracts.

Second, there is ambiguity about the application to evaluation of several laws related to data. While there may or may not be clarity in concept, in practice there is often confusion on how to apply the Privacy Act, the Federal IT Acquisition Reform Act, and the Federal Information Security Management Act to evaluation projects. This confusion leads to delays and expense.

Third, information collection for evaluation purposes is subject to the same requirements as any other federal information collection, under the Paperwork Reduction Act. Required public notice periods and review by the OMB Office of Information and Regulatory Affairs take a minimum of 4 months, and often 8 months, or even more. This timeline can make it impossible to evaluate grants that are funded for only a few years; may prohibit the collection of baseline information on program participants; and may

preclude the timely provision of evidence to inform policy or program decision making. While OMB has developed streamlined mechanisms for some limited situations, for the most part the requirements do not differ depending on the size or scope of the information collection. They are the same for a set of interviews with state officials imposing a total burden of 50 hours, and a major survey interviewing thousands of people and imposing thousands of burden hours on respondents.

Seven: The federal evaluation enterprise lacks many elements of the government-wide infrastructure that supports and protects the strength and integrity of the federal statistical system.

1. As one example, data collected by designated federal statistical agencies are covered by the Confidential Information Protection and Statistical Efficiency Act (CIPSEA), whereas data collected by evaluation offices are not.

2. Second, the federal statistical system benefits from a formal structure for exchange of information and ideas across agencies, as well as from a statutorily mandated leadership function at OMB. To support evaluation and the use of evidence, OMB has created an Evidence Team and an Inter-Agency Council on Evaluation Policy, which I co-chair. However, these activities remain limited and largely informal.

3. Third, while ACF and some other agencies have established evaluation policies, there is no government-wide statement of principles for federal evaluation. Just last week the National Academies of Sciences held a workshop to comment on existing evaluation policies of federal agencies as well as the desirability of a cross-agency or government-wide statement of principles. This might follow the model of the NAS publication, *Principles and Practices for Federal Statistical Agencies*.

    ACF's evaluation policy aims to protect the transparency, independence, and objectivity of evaluation, and to insulate evaluation functions from undue influence and from both the appearance and the reality of bias. However without a national infrastructure these protections are somewhat fragile. While some agencies – notably the Department of Education's Institute for Education Sciences – have statutory protections for independence, this is not typical. ACF leadership established our evaluation policy, and future leadership could choose to eliminate it. It would be a shame to lose safeguards such as requirements in our policy to:

    - Make information about planned and ongoing evaluations easily accessible, publish study plans in advance, and release comprehensive evaluation results regardless of the findings.
    - Conduct evaluations through the competitive award of grants and contracts to external experts who are free from conflicts of interest.
    - Place authority with the career director of the Office of Planning, Research and Evaluation to approve the design of evaluation projects and analysis plans; and to approve, release and disseminate evaluation reports.

Conclusion.

The mission of my agency is to foster health and well-being by providing federal leadership, partnership, and resources for the compassionate and effective delivery of human services. Our vision is children, youth, families, individuals and communities who are resilient, safe, healthy, and economically secure. The importance of these goals demands that we continually innovate and improve, and that we evaluate our activities and those of our partners. This is true for other agencies as well.

You have the opportunity to enhance this work. I particularly hope that you will aim your recommendations at furthering the use of data, evidence and evaluation for learning and improvement, rather than primarily for answering yes/no questions that are often of surprisingly little use for these purposes. I look forward to your report. Thank you.

Naomi Goldstein
Deputy Assistant Secretary for Planning Research & Evaluation
US DHHS Administration for Children and Families

Commission on Evidence-Based Policymaking
4 November 2016

ACF Evaluation Policy

Rigor ←

Relevance ←

Transparency ←

Independence ←

Ethics ←

http://www.acf.hhs.gov/programs/opre/resource/acf-evaluation-policy

≡ OPRE

Seven main points

1. Data are necessary but not sufficient to create evidence.

2. Administrative data and ongoing surveys are important resources, but specialized data collected for the purposes of specific evaluations will also continue to be important.

3. Easier accessibility of administrative data would greatly streamline evaluation activities.

4. Implementation & descriptive studies are just as important as impact or outcome evaluations; relevance is just as important as rigor.

5. Prerequisites for federal evaluation include statutory authority, funding, a skilled federal workforce, and a robust private sector.

6. Several bureaucratic challenges pose substantial barriers to federal evaluation efforts, in the areas of procurement, information technology and security, and information collection.

7. The federal evaluation enterprise lacks many elements of the infrastructure that supports & protects the federal statistical system.

≡OPRE

Policy-Driven Demand for Government Evaluation: Data and Capacity Needs
HHS Teen Pregnancy Prevention Program and Key Issues Related to Evaluation

Evelyn Kappeler

Director

Office of Adolescent Health

November 4, 2016

1

OAH Teen Pregnancy Prevention Program

- **Replication of Evidence-Based Programs (Tier 1)** – approx. $75 million annually

- **Research & Demonstration Projects to Develop & Test New and Innovative Approaches (Tier 2)** – approx. $25 million annually

- **TPP Program Support** - approx. $7 million annually

- **Evaluation of TPP Approaches** - approx. $6.8 million annually

2

TPP Evaluation Framework FY2010-FY2014

Office of Adolescent Health (OAH)
Teen Pregnancy Prevention (TPP) Program Evaluation
2010-2015

102 grants

Federal Contract	75 grants	27 grants	Federal Contract*
Teen Pregnancy Prevention Replication Study Evaluation (Tier 1)	Replication of Evidence-based Programs (Tier 1)	Research and Demonstration Projects (Tier 2)	Evaluation of Adolescent Pregnancy Prevention Approaches (PPA) (Tier 2)
3 evaluations	16 evaluations	17 evaluations	5 evaluations

*1 non-federally funded program was included for a total of 6 evaluations

41 TPP evaluations

TPP Evaluation Framework FY2010-FY2014

- Conditions for grantee-led evaluations to maintain high level of rigor:
  - Detail criteria of rigorous evaluation
  - Detailed description in funding opportunity announcement
  - Independent evaluator
  - Sufficient resources
  - Grant conditions and commitment to hold grantees accountable to stated standards
  - Programmatic and evaluation technical assistance

Using Data & Evaluation to Improve Our Work

- Tier 1
  - Replicating evidence-based TPP programs to scale in communities with the greatest need (holistic approach)
  - Capacity building to support replication of evidence-based TPP programs
- Tier 2
  - Rigorous evaluation of new or innovative approaches to prevent teen pregnancy
  - Supporting and enabling early innovation to advance adolescent health and prevent teen pregnancy

5

Continued Investment in Data & Evaluation

- Performance Measures
- Rigorous, Independent Grantee-led Evaluations (Tiers 1 & 2)
- Federal Evaluations
  - Multi-site evaluation study – (1) replications, (2) significant or meaningful adaptations, and (3) selected core components of common programs
  - Qualitative study and rigorous evaluations – the feasibility & impact of scaling up evidence-based programs and taking a holistic approach
  - Implementation & impact evaluation – a commonly implemented but understudied teen pregnancy prevention program
  - Secondary data analysis – interventions for middle school youth
  - Meta-analysis – program/contextual elements that affect outcomes

6

Strategies for Building Evaluation Capacity

- Including a planning, piloting, and readiness period for all grantees
- Implementing programs with fidelity and quality through monitoring
- Incorporating evaluation once program implementation has already begun
- Ensuring strong contrast between treatment control

7

Strategies for Building Evaluation Capacity

- Establishing & promoting uniform evidence standards
- Providing evaluation training & technical assistance
- Collecting and using data to make continuous quality improvements
- Disseminating all evaluation results transparently and expanding the evidence

8

Learn More About:

OAH TPP Program:

http://www.hhs.gov/ash/
oah/oah-initiatives/
tpp_program/about/

Evaluation Results:

http://www.hhs.gov/ash/
oah/oah-initiatives/
tpp_program/cohorts-fy-
2010-2014.html/

Commission on Evidence-Based Policymaking

Washington, DC – November 4, 2016

2

Cities are in a unique position to pursue evidence-based policymaking and foster innovation.

Cities are **closer to problems and to the people affected** – which makes them better able to innovate.

- Responsible for design, delivery and execution of services
- Receive immediate feedback from residents who viscerally experience their engagement with local government

Cities are both the **creators and consumers of evidence**.

- Provide funding and real-world data for research
- Use evaluation to inform effective policy making that ensures accountability

NYC
Mayor's Office of Operations

3

The Center for Economic Opportunity (CEO) helps New York City government reduce poverty by advancing the use of evidence and data in program and policy design, service delivery, and budget decisions.

	Research		Design		Program Management
	Evaluation		Data Integration		Digital Products

- **Poverty Measure**: produces an annual NYC CEO Poverty Measure
- **Innovation Fund**: designs and oversees ~ $85 million portfolio of ongoing early-stage program models
- **Evaluation**: manages evaluations using 8 outside firms
    - o Examples of past CEO evaluations that have led to large-scale change include:
        - o CUNY ASAP
        - o Jobs Plus
        - o Sector-focused workforce initiatives

NYC
Mayor's Office of Operations

4

NYC is already using administrative data to improve citywide services and outcomes for New Yorkers.

- **Citywide Data Integration** is the commitment to making data accessible for data sharing among multiple agencies.

- **Worker Connect** enhances the ability of front-line staff to access client information held by different agencies.

- **Common Metrics Initiative** seeks to create uniform metrics across funding streams and city agencies to make relative comparisons of programs possible.

Recommendations: Continue to build on existing, effective strategies at the federal level.

1. **Encourage more federal funding to be allocated to evidence-based strategies** and to grantees who are committed to building evidence through programs.

2. **Continue developing federal Common Metrics** to ensure everyone can make relative assessments and direct funds to the most effective programming to make funding allocations more impactful.

3. **Amend federal laws to give local governments more freedom to share client data** among its own divisions and employees.

   a) Amend HIPAA regulations to create a new legal exception that clearly authorizes city agencies to share information with each other, without requiring client consent, when providing or coordinating benefits, services, and care.

   b) Clarify additional ways consistent with the Family Educational Rights and Privacy Act that cities can engage in outreach and support to vulnerable students.

   c) Update privacy related laws and regulations to accommodate the application of technology used to support data integration.

Contact Information

For more information: www.nyc.gov/ceo

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Center for Economic Opportunity
Mayor's Office of Operations

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@NYCOpportunity
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Evidence-based Policy: A Federal Evaluation Office's Perspective

Demetra Smith Nightingale
Chief Evaluation Officer
U.S. Department of Labor

Presentation to the
Evidence-based Policy Commission
November 4, 2016

2

DOL Mission

- "...foster, promote, and develop the welfare of the wage earners, job seekers, and retirees of the United States; improve working conditions; advance opportunities for profitable employment; and assure work-related benefits and rights"
  - Over a dozen operating agencies, each with subagencies, many programs, and field offices
    - Worker protection and labor standards
    - Employment services, job training, and worker security
    - Policy and advocacy
    - Many have research, analysis, and/or evaluation offices
- CEO's Departmental-level evaluation support-
  - Complements not duplicates agency evaluation functions
  - Raises the quality of evaluations and awareness and knowledge of evaluation methodology and standards
  - Improves use and dissemination of evaluation results
  - Improves access to, quality of, and use of data, including the CEO Data Analytics Unit (coordinate with BLS, Performance Management Center, and agencies)
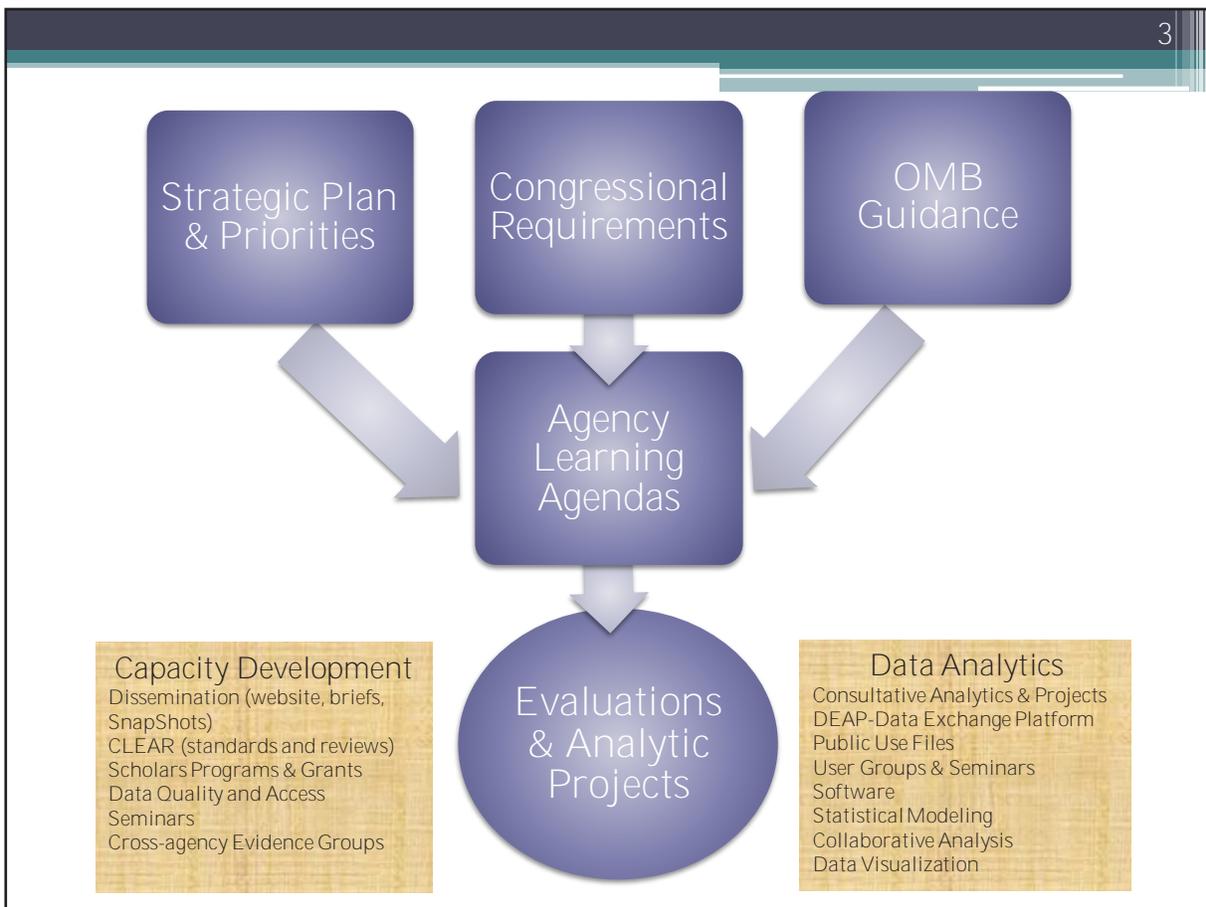
Main Types of Evaluations

- Formal evaluations
  - Experimental design—random assignment treatment and control groups (especially formal net impact evaluations, rapid cycle behavioral tests)
  - Quasi-experimental designs—created comparison groups (statistical matching techniques)
  - Various analytic levels: nation, states, localities, grantees; programs, demonstrations, strategies, models
- Outcome evaluations
  - Nonexperimental statistical/econometric modeling
  - Survey analysis
  - Statistical analysis of BLS and Census data
- Program performance analysis
  - Quantitative output and outcome analysis
- Implementation and management evaluations
  - Organizational and program process analysis

5

Priority Data Issues for Evaluations

- Appropriate outcome variables
  - (e.g., individual workers, program participants, firms, establishments, states)
- Appropriate independent variables, covariates
  - (e.g., labor market conditions, demographic and household characteristics, work and earnings history, education, criminal record, occupation/industry, compliance history)
- Time frame aligned to evaluation goals—pre and post periods
- Micro-level data
- Longitudinal features
- Agile merging
  - Longitudinal analysis files
  - Using unique identifiers (e.g., individuals, firms, establishments, states, programs, grantees)
  - Linking other evaluation data collected (e.g., surveys, program data)

6

Priority data systems issues for evaluations

- Analysts' access to the physical data infrastructure (e.g., by third-party researchers, federal staff analysts)
- Expert human capital (e.g., data and programming expertise)
- Timeliness of access
- Security (e.g., secure PII, informed consent usage)
- Cost efficient

7

Priority interests ("wish list") to improve data for DOL evaluations

- *Earnings data.* Direct, and less costly, access to earnings records produced by DOL's state employment security agency partners—for evaluation, statistical products, and program performance measurement
  - National Directory of New Hires
  - Longitudinal Employer and Household Dynamics
- *Firm identifiers.* Common firm, employer, and establishment identification scheme
- *Reformed PRA.* Streamlined and less costly Paperwork Reduction Act (PRA) process for evaluations and evidence-building
- *Streamlined IAA.* Less cumbersome interagency agreement (IAA) process to facilitate and encourage cross-agency data sharing and matching at the Federal level
- *Privacy & Security.* More clarity and consistency in procedures and rules among Federal agencies and other data providers

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8

For more information…

- Demetra Nightingale
Nightingale.Demetr@dol.gov

- CEO website (including DOL Evaluation Policy Statement)
https://www.dol.gov/asp/evaluation/EvaluationPolicy.htm

- CLEAR (DOL's evidence-based clearinghouse)
http://clear.dol.gov/

Testimony to the Commission on Evidence-Based Policymaking
"Policy-Driven Demand for Government Evaluation: Data and Capacity"

Submitted by: Katherine O'Regan, Assistant Secretary for Policy Development & Research, Department of Housing and Urban Development
November 4, 2016

A. Importance of the Commission's work

Good afternoon and thank you Commissioners for the invitation to join you today, to talk about data and capacity issues in government evaluation. Collecting, analyzing and using data and research to inform HUD's programs and policies is at the core function of my office, the Office of Policy Development and Research. Like many other Federal agencies, HUD has been focused on learning more from the data we collect, and the research we conduct.

We believe that to make the most of government data and fully leverage how these data can inform policy, we need a leap forward:

- by making our administrative data much more widely available while protecting privacy;
- by matching them to other data – across government agencies, across levels of government, and non-governmental data, which is particularly key to expanding cross-domain knowledge; and
- By ensuring the capacity of governmental agencies to leverage linked government data to conduct in-house research.

We have access to our own administrative data but have both internal and external gaps.

- Internal needs include the staff time and capacity to do the research internally - with better infrastructure to support them, to ensure data privacy protections, and to more easily permit linking to data external to the agency.
- External needs include the ability to get outside researchers' access to our data and, similarly, the infrastructure to support them, ensure data security, and enable linking.

The Evidence Commission's charge, and recommendations, could create that leap forward, greatly improving the use of Federal data in building evidence for policy. I will start by providing some background on an area we have focused considerable effort.

B. Cross-Agency Data Linking

HUD has initiated several cross-agency data linking efforts to better understand non-housing domains of HUD assisted households, and to support evaluation work. I will focus on two efforts in particular, and some lessons learned.

1. Department of Education, Free Application for Federal Student Aid (FAFSA).
   This year, HUD and the Department of Education (ED) signed an MOU that allows HUD to provide ED with data on assisted tenants for matching to Federal Student Aid data.

   Benefits
   We are using the used the linked data to learn about application for and receipt of Federal Student Aid among tenants, **and** to conduct some rapid-cycle experiments, aimed at increasing FAFSA take up and college enrollment.
   - For the first time, HUD has national data on one measure of college attendance for those we serve.
   - We are able to conduct rapid-cycle, in-house experiments.

- We are also able to provide aggregated data to Public Housing Agencies (PHAs) on the FAFSA take up for their assisted households, <u>which some will use to evaluate their programmatic efforts – for the first time</u>.

Lessons
- Those linked-data, however, do not sit in a secured research center with access for HUD or ED staff.
- *Lack of infrastructure inhibits easy in-house work, or for getting more out of the matches.*

2. <u>HUD-National Center for Health Statistics (NCHS) linked data.</u>
The second example is work with the National Center for Health Statistics, linking HUD longitudinal administrative data on assisted households to 14 years of cross-sectional health survey data from two national surveys (*National Health Interview Survey (NHIS); National Health and Nutrition Examination Survey (NHANES)*).

Benefits
The linked data files enable researchers to examine the relationship between assisted housing and factors that influence health status, chronic disease, health care utilization, morbidity, and mortality. Benchmarking data and research have already been produced.

Lessons
- The existence of the CDC research center, with *appropriate infrastructure for linking and for handling privacy* was fundamental to the work.
- The MOU process allowed both agencies to conduct the linkage cost-free, and the interagency MOU underwrote free RDC access for HUD researchers, a significant cost barrier reduction.
  - *Sustainable financial models for data sharing need to be built in to such work.*
- Legal barriers due to data privacy concerns were very challenging.
  - Establishing the MOU between agencies took many years to negotiate.
  - *This project moved forward due solely to the prolonged commitment of a handful of staff.*
  - *As we continue down this path, <u>a more centralized approach is much more efficient.</u>*

<u>Across both experiences, these one-off, time consuming interagency matches are not the most efficient way to exploit data and are difficult to sustain.</u> This has led to our most recent effort.

C. HUD MOUs with the Census Bureau

HUD has entered into two agreements with Census to greatly broaden access to HUD data and matching with non-HUD data for approved <u>internal</u> and <u>external</u> researchers, within Census's Controlled Access Infrastructure.[1]

1. <u>The first is an Inter-Agency Agreement (IAA)</u> with the <u>Center for Administrative Records Research and Applications (CARRA)</u> to link data from HUD's tenant databases and select randomized control trials with the Census' survey data collection and other administrative data.
  - HUD's tenant databases are already maintained within CARRA, which permit outside researchers to gain access via a secured Federal Statistical Research Data Center.

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[1] Census has the infrastructure to support IT security requirements for research with PII and other highly sensitive data. As part of the infrastructure support, Census provides disclosure reviews and research assistance to authorized researchers with approved research projects.

- Via this IAA, HUD has sent the Moving to Opportunity (MTO) data to CARRA (the HUD voucher demonstration that Raj Chetty and co-authors linked to IRS data);
  - In FY2017, we plan to send the Family Options Study (FOS) data to CARRA.
- To jumpstart research projects, HUD will issue a solicitation for research using these data linked with other administrative data – all accessed through the Federal Statistical Research Centers that are the portal to CARRA.

Benefits
As you all know, and will be learning more about at upcoming convenings, OMB directed the Census Bureau to use appropriated funds for these purposes, and to administer the Evidence-Based Policymaking Commission.[2]
- Our agreement with Census is the first Federal effort (a 'pilot') in a larger expansion of Census's data linkage infrastructure to support evidence-building and program evaluation.
- Our IAA and data sharing with Census will greatly increase external researchers access to HUD administrative and research data, within a secured infrastructure.

Lessons
While this pilot has just started, and we believe it holds the promise for how best to proceed with cross agency data matching, and making the most of archived research studies, we also believe:
- A sustainable cost structure will need to be developed for a broad group of Federal agencies to use this model.
- For context, the current pilot costs $50,000 per evaluation data set, *per year*, with potentially additional costs per researcher.
  - The longer-term costs need a model that does not consume agencies' current research budget.

2. HUD and Census have also signed a Joint Statistical Project Agreement (JSPA) that will commit HUD and Census to partner on linking housing data to non-housing data sources already acquired by Census, to be available for internal researchers at each agency.

Benefits
- HUD staff working on these projects are able to access the data linked via CARRA remotely from a secured computing environment within PD&R/HUD, for much faster policy/evaluation work.

Lessons
- *Providing Federal staff with access to linked administrative data, those with program knowledge and the ability to move evidence much more quickly into policy is a critical piece of driving evidence-based policy.*

An additional lesson on the benefits of linked data in CARRA has already occurred on the interplay between data availability and what we study. PD&R is conducting our research-agenda setting process, one that engages with stakeholders internally at HUD, and much more broadly. As we winnow down the more than 500 submissions, some 'big questions' that might not have been asked - or small ones that might not have been prioritized – will be included in our Strategic Plan because, through data matching with the Census, we considered the research feasible. *The existence of a way to evaluate/study something does affect whether we prioritize it in our research agenda.*

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[2] Evidence-Based Policymaking Commission Act of 2016

As we move towards establishing a clearinghouse for Federal data, such as CARRA, there are ways to make the most of those data.

D. Making the most of data within CARRA

1. Institutional Review Board guidance to permit indefinite data matching at CARRA

The recent work from Raj Chetty has brought attention to the benefits of data matching, and specifically to HUD's Moving to Work or MTO demonstration of the 1990s. In that study, HUD received consent from 4,610 families to conduct data matching against administrative records.
- The consent <u>was not time restricted</u> and <u>it was general</u> about the types of administrative data for the matching.
- This has allowed HUD to track the impact on the heads of households and their children for nearly two decades. It permitted the long term impact work of Raj Chetty. And it is allowing the MTO data to be made available at CARRA to measure impacts over even more years.

HUD's Family Options study, a randomized study to measure the benefits of receiving long-term versus short-term housing assistance for families with children who are homeless<u>, also has research questions that extend out 20 years or longer.</u> However, the IRB for this study limited the consent to 5 years.
- Although HUD will be providing these data to CARRA, the limited consent period applies.

Lesson
- It is reasonable to limit the time frame for consent for generic administrative matching.
- But if research data are eventually protected by the Census Bureau Title XIII, as part of the Federal clearinghouse, <u>we are proposing that IRBs be given model language to allow indefinite consent under those conditions.</u>
- When impacts take 20 or 30 years to materialize, we need to be sure that we will be able to measure them.

2. <u>State data.</u>
Demonstrations and evaluations take place in a limited number of locations, and non-Federal administrative data is frequency crucial to many studies. There are many obstacles to accessing –and linking- those data too.

- In the long term evaluation of the Moving to Opportunity demonstration, researchers sought administrative data from multiple states on wages from unemployment insurance programs and on various benefits (TANF and SNAP).
- Data access varied considerably from state to state, with some states providing only aggregate data which limited HUD's ability to look at program impacts for specific subgroups. <u>For one state, we are still working on securing needed data</u>.
  - Note, some of the need to link state data is itself occurring after failure to get agreement on linking across Federal agencies for (in this case, Medicaid data).

Lessons
Consider the role of Non-Federal administrative data in your review
- Census has initiated a pilot with Chapin Hall, bringing in a limited set of state and local data into CARRA, as a proof of concept. This could be expanded.
- Any data inventory the Commission creates should include non-Federal data.

E. Additional Issues for the Commission's Consideration

1. <u>Gathering data and the Paperwork Reduction Act</u>

The Paperwork Reduction Act (PRA) requires that for any data collection involving 9 or more individuals or organizations, the data collection needs to go through a formal process of review that involves both a 60-day public notice in the Federal Register seeking comment to the agency and an additional 30-day notice for the public to provide comment to OMB. HUD's experience is that clearances take between 120 to 180 days, so for most questions**, it is 4 to 8 months before data collection can begin.**

PRA is an effective tool for reducing burden by preventing *unnecessary* data collection from the public. But the length of time to complete the process may also be inhibiting useful data collections that could improve policies and programs, and those sub-optimal policies may impose also impose severe burden on the public.

This is particularly relevant for HUD, which does not operate its programs directly. Instead it provides funding to local organizations to implement its programs. These organizations include Public Housing Agencies (3,400), state and local governments (1,200), lenders (several hundred), multifamily-owners of assisted properties (20,000), and non-profit homeless providers (10,000 or so).

Sometimes it is critical to get new information from these organizations to address an un-foreseen issue. PRA prevents collecting this information in a timely manner beyond nine of these organizations. If these programs were operated by Federal government employees directly we would not be prevented from collecting this information. As a result, it is not uncommon that HUD makes policy decisions and program changes with very little information; often reacting to anecdote rather than a more complete picture.

 Lessons
- More robust incorporation of data and evidence in Federal policy requires improvements in PRA. There are various ways this could be done.

As one example: allow 30-day agency reviews without OMB engagement on collections below some thresholds, such as 1,000 responses and under 500 burden hours. This would take a 90 to 180-day process for these collections and turn them into 30 day processes.

There are numerous other suggestions that this commission would likely hear across Federal agencies, along a similar vein.

2. <u>Address weakness of Privacy Act Protections</u>
In a recent Freedom of Information Act (FOIA) case[3], a Federal district court ordered HUD to release to the requester <u>the individual records</u> of tens of thousands of voucher-assisted tenants, omitting the most obvious identifying variables (name, SSN, address) but including zip code, census tract, age of all household members, race of head, and a wide variety of other data that in HUD's view could be used to identify households receiving HUD assistance.

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[3] "The Inclusive Communities Project, Inc. v. The United States Department of Housing and Urban Development," Civil Action No. 3:14-CV-3333-B

This was possible because the HUD administrative records, and records of many other agencies, are protected from disclosure only under the Privacy Act.

- Under FOIA, when records have only Privacy Act protection, the onus is on the government to prove the probability of harmful disclosure. In this particular case, the court felt HUD had not met the burden of proof, and presumably other courts might come to the same conclusion.
- The individuals whose lives are captured in the administrative and survey data that HUD uses for evaluation and analysis are therefore vulnerable in a way that they would not be if these data had the statutory protections that Census data, income tax data, or Medicare data have.
- HUD is concerned that the quality of administrative data may decline, if some individuals will eventually be less inclined to give honest answers to the questions we ask, or may decline to cooperate at all, if they may subsequently become subject to public exposure.

Lesson
- The Commission should consider recommending strengthening in statutory protection for administrative and survey data collected for agencies like HUD.

F. Conclusion

We appreciate the chance to provide these comments to the Commission, and the forthcoming conversations on data and capacity issues in support of government evaluation and policy needs.

Policy-Driven Demand for Government Evaluation: Data and Capacity

Commission on Evidence-Based Policymaking

Katherine O'Regan

Assistant Secretary
Office of Policy Development and Research
Department of Housing and Urban Development

November 4, 2016

PD&R

U.S. Department of Housing and Urban Development | Office of Policy Development and Research

Cross-Agency Data Linking:
Free Application for Federal Student Aid (FASFA)

- HUD provides ED assisted tenant data for matching to Federal Student Aid data.

- Benefits

    - HUD now has national data on one measure of college attendance.

    - Able to conduct rapid-cycle, in-house experiments.

    - Provide aggregated data to PHAs on take up for assisted households.

- Lessons

    - Linked data not located in secured research center with access for HUD or ED staff.

    - *Lack of infrastructure for easy in-house work, or for getting more out of the matches.*

PD&R

2

U.S. Department of Housing and Urban Development | Office of Policy Development and Research

Cross-Agency Data Linking:
HUD & National Center for Health Statistics

- 14 years of HUD data (1996-2014) linked to cross-sectional health survey data.

- Benefits

  - Enables researchers to examine the relationship between assisted housing and factors that influence health status, chronic disease, health care utilization, morbidity, and mortality.

- Lessons

  - CDC research center (linking, securing privacy) is fundamental to supporting work.

  - MOU included cost-free linkage, free RDC access for HUD researchers.

  - Legal barriers due to data privacy concerns were very challenging; MOU took years to negotiate.

- Across both projects: time-consuming, one-off MOUs not the best way forward.

PD&R

3

U.S. Department of Housing and Urban Development | Office of Policy Development and Research

Census MOUs:
IAA with CARRA

- Center for Administrative Records Research and Applications (CARRA) IAA to link data from HUD's tenant databases and select trials with Census' survey data and other administrative data.

- Benefits

  - OMB directed Census to use appropriated funds for these purposes and to administer the Evidence-Based Policymaking Commission.

  - Pilot to support evidence-building and program evaluation.

  - Will greatly increase external researchers' access to HUD administrative and research data, within a secured infrastructure.

- Lessons

  - A sustainable cost structure will need to be developed for broad adoption.

    - *Longer-term costs need a model that does not consume agencies' current research budget.*

PD&R

4

U.S. Department of Housing and Urban Development | Office of Policy Development and Research

Census MOUs:
Joint Statistical Project Agreement

- Joint Statistical Project Agreement (JSPA) commits HUD and Census to partner on linking housing data to non-housing data sources, available for internal researchers at each agency.

- Benefits

  - HUD staff can access linked data remotely from a secured computing environment within PD&R/HUD, for much faster policy/evaluation work.

- Lessons

  - Providing federal research staff access to broad administrative data is a critical piece of driving evidence-based policy.

- Additional Lesson

  - The interplay between data availability and what we study.

    - CARRA linking is already affecting our research agenda.

PD&R

5

U.S. Department of Housing and Urban Development | Office of Policy Development and Research

Making the Most of Data within CARRA

1. Institutional Review Board guidance to permit indefinite data matching at CARRA.
   - MTO data: consent not time restricted, general administrative matching.
   - Family Options Data: 5 year consent.
- Lessons
  - It is reasonable to limit the time frame for consent for generic administrative matching.
  - But if the responses are protected by the Census Bureau Title XIII, we are proposing that IRBs be given model language to allow indefinite consent.
    - When impacts take 20 or 30 years to materialize, we need to be sure that we will be able to measure them.

PD&R

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U.S. Department of Housing and Urban Development | Office of Policy Development and Research

Making the Most of Data within CARRA

2. State Data

- Non-Federal administrative data is crucial to many studies. State data access varies widely.

- Lessons

  - Consider the role of non-Federal administrative data

    - Chapin Hall pilot, whereby state and local data are being added to CARRA, should be expanded.

    - Any data inventory the Commission creates should include non-Federal data.

Additional Issues to Consider

1. Gathering data and the Paperwork Reduction Act.

- More robust incorporation of data and evidence in Federal policy requires improvements in PRA.

  - Particularly important for HUD – which does not operate its programs directly (Public Housing Agencies = 3,400); state and local governments (1,200); multifamily-owners of assisted properties (20,000); etc.

  - There are various ways this could be done.

2. Weakness of Privacy Act Protections.

- Administrative data on which much of these efforts will be built has fairly weak privacy protections under the Privacy Act.

- The Commission could consider recommending strengthening statutory protection for administrative and survey data collected for agencies like HUD.

NON-PROFIT SERVICE PROVIDERS AND EVIDENCE-BASED POLICY

NON-PROFIT SERVICE PROVIDERS

- ➢ $200 BILLION PER YEAR SPENT BY PRIVATE SOCIAL SERVICE PROVIDERS

- ➢ PROGRAMS TYPICALLY MONITOR OUTPUTS; RARELY MEASURE IMPACT

- ➢ EVIDENCE OF PROGRAM IMPACT IN THIS SECTOR IS NECESSARY FOR PROMOTING EVIDENCE-BASED POLICIES AND PROGRAMS NATIONALLY

CHALLENGES (FOR PROVIDERS)

- ➢ FUNDING IS NOT ALIGNED WITH MEASURING IMPACT

  Most private and government funding for private providers does not require impact measurement, and consequently limited resources are available to build a body of evidence of what works.

- ➢ ACCESS TO DATA AND ANALYSIS IS LIMITED

  Social service providers collect the necessary data for eligibility and for reporting, but lack access to administrative data to measure outcomes and the bandwidth to analyze it.

- ➢ NOT CONNECTED TO EVIDENCE OF WHAT WORKS

  Providers looking to start a new, evidence-based program often have a difficult time finding information on validated programs and how to implement them.

RECOMMENDATIONS (FOR COMMISSION)

- ➢ **INCENTIVIZE IMPACT EVALUATION**

  Funding for private service provider programs should require rigorous evaluation AND include appropriate funding to pay for it so providers can measure impact, but not cut into scarce program budget resources to do so.

- ➢ **PROVIDE ACCESS TO ADMINISTRATIVE DATA**

  Providers need access to the administrative data sets that include key outcomes such as earnings records, government program participation (e.g. TANF, SNAP, SSDI), hospitalizations and health care utilization, arrest records and education records.

- ➢ **CREATE A WHAT WORKS CLEARINGHOUSE**

  Make the best evidence available and easily accessible so that impactful programs are widely known and can be replicated throughout the private service provider sector.

WILSON SHEEHAN
LAB FOR ECONOMIC
OPPORTUNITIES

REDUCING POVERTY AND IMPROVING LIVES
THROUGH EVIDENCE-BASED PROGRAMS AND POLICIES

EXAMPLES OF LEO'S WORK WITH NON-PROFIT SERVICE PROVIDERS USING ADMINISTRATIVE DATA

EXAMPLE 1: HOMELESSNESS PREVENTION

PROGRAM: The Homelessness Prevention Call Center (HPCC) in Chicago is one of the largest call centers in the nation, taking approximately 70,000 calls each year. The HPCC connects those at risk of homelessness with emergency financial assistance, but the availability of funding varies unpredictably on a day-to-day basis.

STUDY AND DATA: LEO'S study examines the impact of financial assistance for 4,500 individuals and families who called the HPCC between 2010 and 2012. In order to observe shelter entry for these callers, we linked the call center information to administrative data on entries into and exits from homeless shelters in Chicago.

RESULTS: Emergency financial assistance prevents homelessness.
- Assistance reduced shelter entry 6 months after the call by 76 percent; effect persists for more than a year.
- Impact of financial assistance is largest for those with especially low income.

EXAMPLE 2: JUVENILE DIVERSION

PROGRAM: Reading for Life (RFL) is a diversion program in St. Joseph County, Indiana designed for non-violent juvenile offenders. A unique and innovative alternative to prosecution in the court system, RFL allows participants to study works of literature in small groups led by trained volunteer mentors.

STUDY AND DATA: LEO's study examines the impact of RFL for 400 first time juvenile offenders randomly placed into RFL or into community service diversion between 2010 and 2014. In order to measure recidivism, we linked RFL enrollment data with administrative data collected by the Juvenile Justice Center and adult arrest records collected by the State.

RESULTS: The Reading for Life diversion program reduces two-year recidivism rates for prosecuted felonies by 50%.
- Participants were 36% less likely to be arrested
- Participants were 68% less likely to be prosecuted for a felony

The **Wilson Sheehan Lab for Economic Opportunities (LEO)** is a research lab housed in the Department of Economics at the University of Notre Dame. LEO matches top researchers with social service providers to conduct impact evaluations that identify the innovative, effective, and scalable programs and policies that support self-sufficiency. LEO's research is conducted by Notre Dame faculty as well as an interdisciplinary network of scholars from across the country with expertise in designing and evaluating the impact of domestic programs aimed at reducing poverty and improving lives. LEO disseminates its key findings to policymakers and front-line providers in order to support evidence-based policy and programming decisions that effectively and jointly reduce poverty in the United States.

Learn more at www.leo.nd.edu

December 12, 2016 Meeting

Finding CMS Publicly Available Data

CMS makes lots of data available to download for free

Data.CMS.gov

Dnav.CMS.gov

Data.Medicare.gov

| Hospital Compare data | Nursing Home Compare data | Physician Compare data |
| Home Health Compare data | Dialysis Facility Compare data | Supplier Directory data |

3

Releasing Machine Readable Data – Provider Payment and Utilization Files

- Public data sets with payment and utilization information for services and procedures provided to Medicare beneficiaries
- Data released to date covers > 85% of Medicare program payments

May 2013	April 2014	April 2015	Oct 2015	Dec 2015	Mar 2016	Oct 2016
Hospital Inpatient & Outpatient	Physician & Other Supplier*	Part D Prescriber	DME and POS	Home Health Agency	Skilled Nursing Facility	Hospice
• 3,000 Hospitals	• 880,000 NPIs	• Over 1M NPIs	• 385,000 NPIs	• 11,000 HHAs	• 15,000 SNFs	• 4,000 Hospices
• 150,000 records	• 9M records	• 23M records	• 1.9M records	• 100,000 records	• 80,000 records	• 4,000 records
• $62B in payments	• $90B in payments	• $103B in drug costs	• $11B in payments	• $18B in payments	• $28B in payments	• $15B in payments

*Updated to include demographic and health information associated with the provider's beneficiary panel in **October 2015**

4

Medicare Part D Generic Dispensing Rate

HRR Level
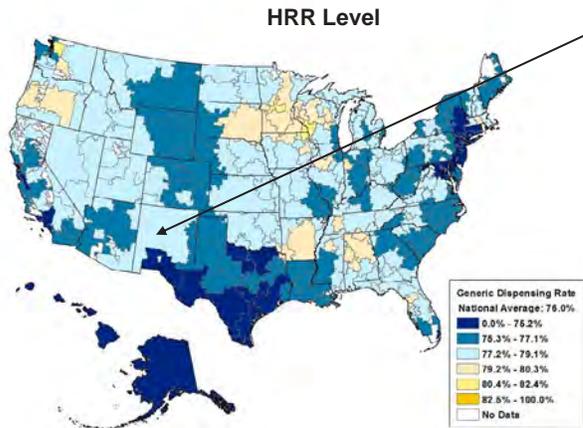
The national average for dispensing generic drugs is 76.0%. NM's state average (77.2%) is slightly higher.

ZIP-code 87109
(Albuquerque)
= 71.5%

Generic Dispensing Rate
National Average: 76.0%
- 0.0% - 75.2%
- 75.3% - 77.1%
- 77.2% - 79.1%
- 79.2% - 80.3%
- 80.4% - 82.4%
- 82.5% - 100.0%
- No Data
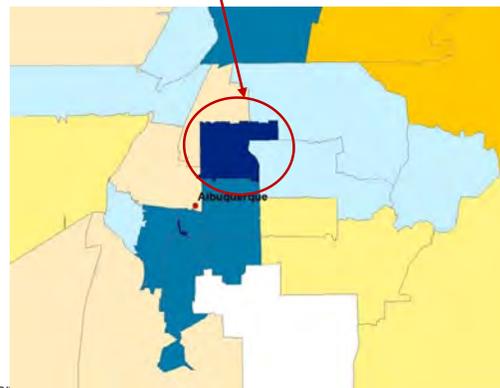
Across NM ZIP-codes, generic dispensing rates range from 0% to 100%. One-third of NM ZIP-codes have rates below the state average.

5

Part D Prescribers in Albuquerque (ZIP-code 87109)

Albuquerque, NM: ZIP 87109
545 Providers, Average GDR = 71.5%

Provider Name	Provider Specialty	Drug Claims	Generic Drug Claims	Generic Drug Dispensing Rate
A. Weinstein	Ophthalmology	4,834	594	12.3%
J. Dorf	Pulmonary Disease	2,963	515	17.4%
T. Watterberg	Ophthalmology	2,123	433	20.4%
V. Valentine	Clinical Nurse Specialist	1,078	348	32.3%
R. Allen	Ophthalmology	1,713	619	36.1%
J. Krawchuck	Nurse Practitioner	1,371	604	44.1%
B. Monson	Ophthalmology	1,096	521	47.5%
R. Patel-Trujillo	Internal Medicine	1,757	877	49.9%

These 8 providers all have at least 1,000 total drug claims and a generic drug dispensing rate (GDR) < 50%.

The most prescribed brand name drug by this provider is Vigamox, which accounted for 34.2% of his total claims ($188,354)

6

Building Consumer Friendly Interfaces

7

Enabling Cutting Edge Health Care Research

- ***Research Data Assistance Center (ResDAC)*** provides assistance to researchers interested in using Medicare and/or Medicaid data
- The ***Chronic Condition Warehouse (CCW)*** is CMS' research data warehouse designed to support external researchers and internal CMS research and analytic functions
  - Contains over 315B records with 1B records added monthly
  - Unique beneficiary ID allows data linkages across all CCW data
- New innovator research data access expands current data release policy to allow innovators to access CMS data to create products they intend to sell

8

Available Research Data Files

- Medicare enrollment and claims (1999-current)
- Medicare Part D event data (2006-current)
- Medicaid eligibility and claims (1999-2013)
- Assessment data (instrument inception-current):
  - Long Term Care Minimum Data Set (MDS)
  - Home Health Outcome and Assessment Information Set (OASIS)
  - Inpatient Rehab Facility – Patient Assessment Instrument (IRF-PAI)
- Shared Savings Program and Pioneer ACO files (2013-current)
- Medicare Data on Provider Practice and Specialty (2008-current)
- Administrative data linked to surveys (e.g., Health and Retirement Survey, National Health and Aging Trends Study)

9

Types of Research Data Files

- CMS makes two types of files available to researchers
  - Limited Data Set (LDS) files which excludes specific direct identifiers, including name, address, HIC, SSN, DOB, ZIP Code and medical record number
  - Research Identifiable Files (RIFs) which are custom CMS data extracts that may contain direct beneficiary identifiers
- LDS files are easier to request (less documentation and CMS review) but users face additional limitations on use of the data

	Research Identifiable	Limited Data Sets
Requires CMS Privacy Board Review?	Yes	No
Data file can be customized to only include a specific cohort (e.g., diabetics residing in MN)	Yes	No
Data can be linked to non-CMS data using a beneficiary identifier (SSN or Medicare id)	Yes	No

10

Virtual Research Data Center (VRDC)

- Researchers have been receiving CMS data for decades
  - Requests have grown exponentially over the past couple years
  - Researchers are requesting more timely and less expensive data
- CMS developed the VRDC to meet researchers evolving needs
- VRDC is a secure and efficient means for researchers to virtually access and analyze the vast store of CMS data in the CCW
- VRDC benefits
  - Lower cost, more timely data
  - Researchers use own laptop to securely access and analyze data remotely
  - Increased security for sensitive data
  - Additional privacy protections – no beneficiary identifiable data may leave the secure environment

The CMS Virtual Research Data Center (VRDC) is an alternative solution for accessing and analyzing CMS data for research purposes. To learn more about getting data for your research, view the CMS VRDC FAQs and visit the ResDAC website.

11

BLS Federal-state cooperative program:
Quarterly Census of Employment and Wages

Erica L. Groshen
Commissioner
Bureau of Labor Statistics

Commission on Evidence-Based Policymaking
December 12, 2016

1 — U.S. BUREAU OF LABOR STATISTICS • bls.gov

Agenda

- QCEW general background
- Data acquisition
- Quality and curation
- Linking
- Uses and analysis
- Sustainable, scalable, matchable
- Archiving

2 — U.S. BUREAU OF LABOR STATISTICS • bls.gov

QCEW general background

- **Essential economic information**
  - ▶ Number of establishments
  - ▶ Monthly employment
  - ▶ Total and average wages
- **Issued quarterly (frequent)**
  - ▶ Available 6 months after quarter ends
- **Published detail**
  - ▶ Nation, states, MSAs and counties
  - ▶ By 6-digit NAICS industry
- **Covers 96.5% of civilian employees**
  - ▶ U.S., Puerto Rico and U.S. Virgin Islands

3 — U.S. Bureau of Labor Statistics • bls.gov

BLS

Data acquisition

- **Fed-state cooperative program**
  - ▶ BLS provides funding, training, IT system, quality standards, processing, analysis, enhancements
    - – $58 million in FY2016; over half goes to states
    - – 100 BLS and 300+ state employees
  - ▶ State LMI agencies prepare and provide quarterly UI tax micro data
    - – Establishment-level
    - – Within 15 weeks
  - ▶ Shared governance council (BLOC)

4 — U.S. Bureau of Labor Statistics • bls.gov

BLS

Quality and curation

- Working together to ensure gold-standard data
  - ▶ Acquiring
  - ▶ Transforming
  - ▶ Reviewing and editing
  - ▶ Processing
- Data enhancements
  - ▶ Annual Refiling Survey
  - ▶ Multiple Worksite Report
  - ▶ Linking…

Linking

- Establishments linked across quarters to create longitudinal records
  - ▶ Sampling frame for BLS establishment surveys
  - ▶ Input to Local Area Unemployment Statistics
  - ▶ Source of Business Employment Dynamics (BED) and new variables
    - – Births, deaths, expansions, contractions
    - – Age, survival rates, firm size

Uses and analysis

■ An example of high-quality data BLS provides to inform smart, evidence-based decisions

Uses and analysis – cont'd.

■ QCEW's strong, wide user base
  ▶ Bureau of Economic Analysis
  ▶ Census Bureau
  ▶ Outside researchers—top ranked
  ▶ Programmatic
    – Employment and Training Administration
    – State and local government
  ▶ Private sector
    – Modeling and weighting big data
    – Sales plans and location decisions
    – Forecasts

Map of QCEW uses

BLS Publications
- **QCEW:** Quarterly Releases: County by detailed NAICS - 5 month lag
- Annual Employment and Wages
- Special publications/maps

BED: Job Creation/Destruction
- Quarterly and Annual
- Size Class Dynamics
- Firm and establishment births/ deaths
- Business Survival Rates
- Monthly Labor Review

Census Bureau Uses of QCEW
- **LEHD:** QCEW is essential matching key and source of geography and industry and link to other datasets, and employment
- **Business Register:** Sharing to reduce costs, burden and improve consistency
  Industry Code Sharing (3 Million/year)
- **COS:** Mullti-unit sharing- reduces cost and improves consistency
- **CPS Redesign:** QCEW used after decennial Census to improve sample design

State and Local Government
- Services Planning
- Transportation planning
- Emergency planning

Economic Development Indicators
- Cluster Analysis
- Shift Share
- Industry Diversity Indexes
- Location Quotients
- Local Impact analysis
- Site planning decisions

Gross Domestic Product (BEA)

Personal Income (BEA) Largest single input

State Revenue Projections

Economic Forecasting

General Economic Uses

Current Employment Statistics

Occupational Employment Statistics

Occupational Safety and Health Statistics

Jobs Openings & Labor Turnover Survey

Benchmarking (Employment Base)

Analytical Uses

Quarterly Census of Employment and Wages (QCEW)

Sampling

Industrial Price Program

National Compensation Survey

Current Employment Statistics

Occupational Employment Statistics

Occupational Safety and Health Statistics

Job Openings & Labor Turnover Survey

Programmatic Uses

UI Tax Rate & Actuarial Analysis

UI-Covered Employment

Local Area Unemployment

Social Security Administration

Federal Funds Allocation $321 Billion (HUD, USDA, HCFA/CHIP)

Other Agencies and States:
- NAWS/DOL
- NASS: Rural Innovation Survey
- States: Job Vacancies, Green Jobs Wage and Benefits Surveys

BLS

Uses and analysis – cont'd.

■ **Users of BED job dynamics data include**
- ▶ Federal Reserve System
- ▶ Small Business Administration
- ▶ Academics

BLS

Sustainable, scalable, matchable

- QCEW can be leveraged for new uses with **little to no additional:**
  - ▶ Respondent burden
  - ▶ Cost
- Examples
  - ▶ Non-profit economy
  - ▶ Hurricane flood zone maps

BLS

Sustainable, scalable, matchable – cont'd.

- More initiatives to leverage QCEW
  - ▶ Intra-BLS projects
    - – Foreign Direct Investment
    - – Quarterly Refiling Survey pilot
  - ▶ Enterprise data
  - ▶ Wage records

BLS

Archiving

- Linked micro data
  - ▶ 1990-present
  - ▶ Confidential
- Unlinked micro data
  - ▶ 1975-present
  - ▶ Confidential
- Detailed tabulations
  - ▶ 1975-present
  - ▶ Public website

QCEW bottom line

- Product of robust Fed-state partnership
- Comprehensive, detailed, accurate, relevant and timely
  - ▶ Supports decentralized decision-making
  - ▶ Cannot be replicated by private sector
  - ▶ Underlies key official and nonofficial statistics
  - ▶ Serves all parts of country and economy
- Flexible—supporting modernization, add-ons, matching, modeling and upgrades to other programs

QCEW: High-ROI component of our national informational infrastructure

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BUILDING A MASSIVE LONGITUDINAL PANEL

DAVID B. GRUSKY
STANFORD UNIVERSITY

DECEMBER 12, 2016

PRESENTION TO THE ...
COMMISSION ON EVIDENCE-BASED POLICYMAKING

EVIDENCE DEFICIT

QUESTION: WHY ISN'T THERE AUTHENTIC EVIDENCE-BASED POLICYMAKING?

ANSWER: WE DON'T YET HAVE THE CAPACITY TO BRING IRREFUTABLY HIGH-QUALITY EVIDENCE TO BEAR ON THE FULL GAMUT OF PROGRAMS AND INTERVENTIONS

IF WE DON'T DEVELOP THAT CAPACITY SOON, CYNICISM MAY SET IN AND THE EVIDENCE-BASED POLICYMAKING MOVEMENT MAY BE ABANDONED

STANFORD CENTER ON
POVERTY AND INEQUALITY

HOW CAN THAT CAPACITY BE DEVELOPED?

BUILD A MASSIVE LONGITUDINAL PANEL (THAT EXISTS IN LATENT FORM AND IS ASSEMBLED ON DEMAND ... ONLY DELIVERING THE VARIABLES THAT ARE RESEARCH-NECESSARY)

THREE STEPS

STANFORD CENTER ON
POVERTY AND INEQUALITY

STEP I: BUILD THE POPULATION FRAME

1960-90 CENSUS (INC. EDUC., OCC., WRK. STATUS, FAMILY COMP.)	⟷	2000-10 CENSUS (INC., EDUC., OCC., WRK. STATUS, FAMILY COMP.)	⟷	2008-15 ACS (INCOME, EDUC, OCC., WRK. STATUS, FAMILY COMP.)
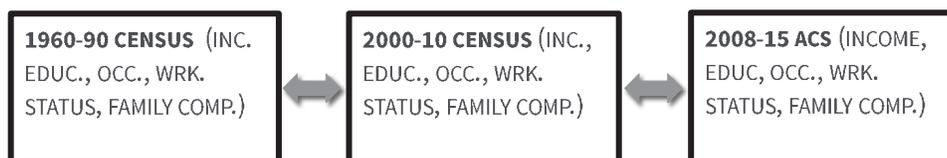
- CONVERT CROSS-SECTIONAL DATA INTO MASSIVE LONGITUDINAL PANEL VIA PIKing
- PRESERVE AND RECORD INTERGENERATIONAL LINKAGES
- REPRESENTS THE U.S. POPULATION ... REACHING A HALF-CENTURY INTO THE PAST
- SELF-REFRESHING AS WE MOVE INTO THE FUTURE

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DIGITIZATION IS SURMOUNTABLE TECHNICAL CHALLENGE
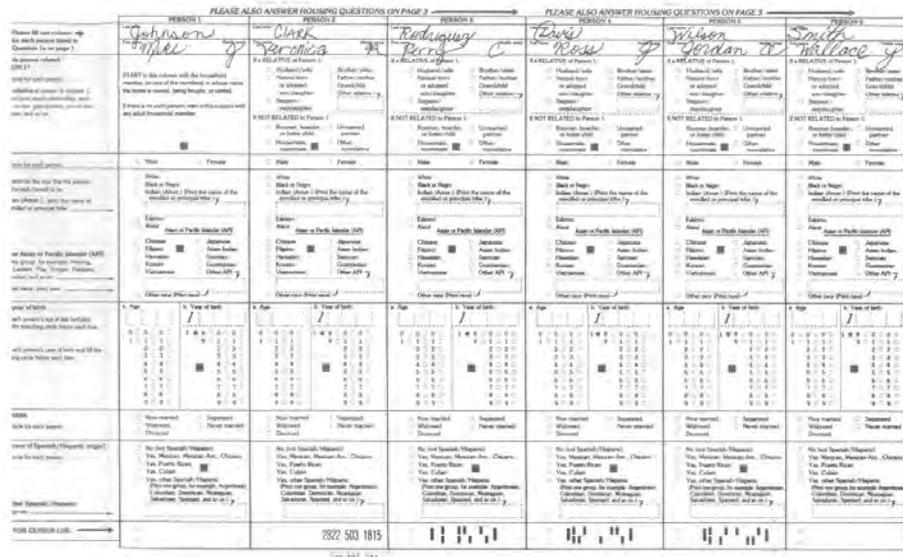
STEP II: RAMP UP THE POPULATION FRAME (IF POSSIBLE)

| **1960-90 CENSUS** (INC. EDUC., OCC., WRK. STATUS, FAMILY COMP.) | ⟷ | **2000-10 CENSUS** (INC., EDUC., OCC., WRK. STATUS, FAMILY COMP.) | ⟷ | **2008-15 ACS** (INCOME, EDUC, OCC., WRK. STATUS, FAMILY COMP.) | ⟷ | **IRS 1040 AND SSA EARNINGS** (1978-2015) |
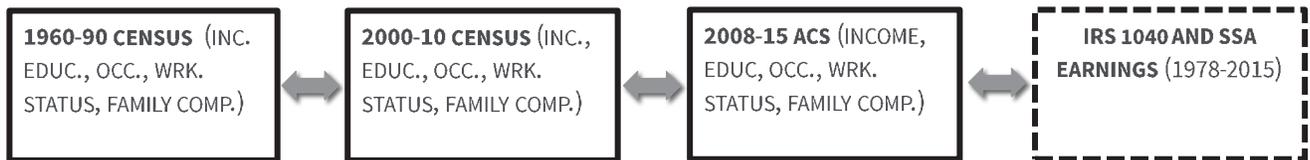
- LINK TO TAX AND EARNINGS RECORDS (IF POSSIBLE)
- PROVIDES MORE FREQUENT UPDATES FOR LARGE SWATH OF POPULATION

THE FALLBACK: TWO SEPARATE FRAMES (I.E., BUSINESS AS USUAL ... ON STEROIDS)

| **1960-90 CENSUS** (INC. EDUC., OCC., WRK. STATUS, FAMILY COMP.) | **2000-10 CENSUS** (INC., EDUC., OCC., WRK. STATUS, FAMILY COMP.) | **2008-15 ACS** (INCOME, EDUC, OCC., WRK. STATUS, FAMILY COMP.) | **IRS 1040 AND SSA EARNINGS** (1978-2015) |

CENSUS FRAME   TAX FRAME
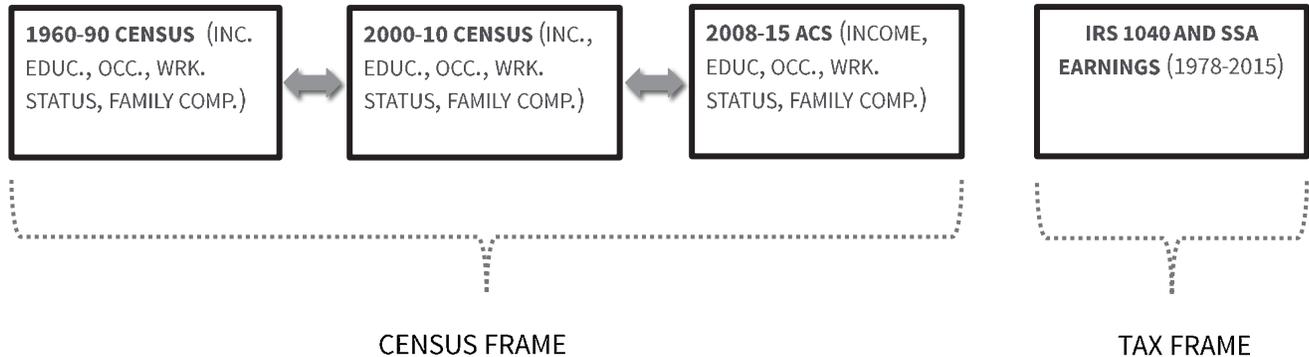
NOTE: CHOOSE THE FRAME THAT'S BEST SUITED FOR RESEARCH QUESTION AT HAND

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STEP II: HANG ADMINISTRATIVE DATA OFF POPULATION FRAME

| **1960-90 CENSUS** (INC. EDUC., OCC., WRK. STATUS, FAMILY COMP.) | **2000-10 CENSUS** (INC., EDUC., OCC., WRK. STATUS, FAMILY COMP.) | **2008-15 ACS** (INCOME, EDUC, OCC., WRK. STATUS, FAMILY COMP.) | **IRS 1040 AND SSA EARNINGS** (1978-2015) |

PROGRAM DATA (E.G., UI, SNAP, TANF, DISABILITY)

OTHER ADMIN. DATA (E.G., EDUC., IMMIGRATION, CRIMINAL JUSTICE)
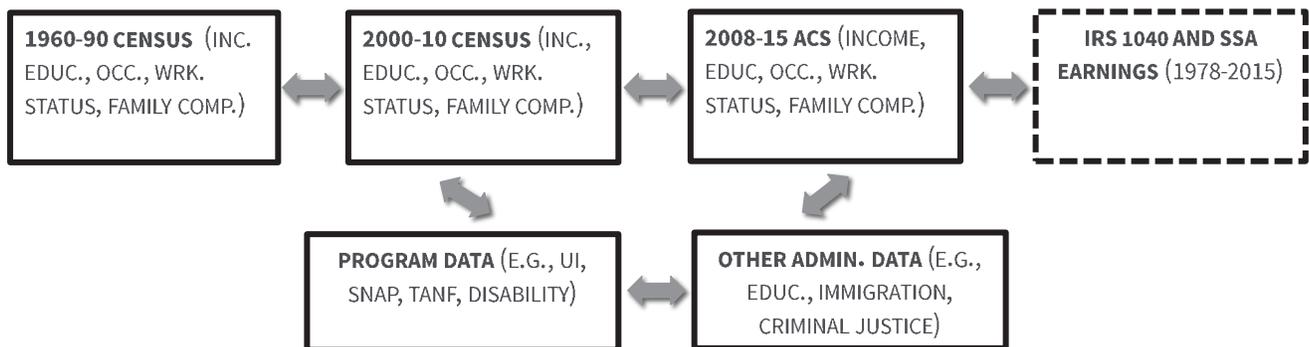
- AGGRESSIVE PROGRAM OF NEGOTIATING DATA-SHARING AGREEMENTS (I.E., CURRENT EFFORTS PUT ON STEROIDS)
- LED BY CARRA AND SUPPORTED BY UNIVERSITIES AND STATE & LOCAL GOVERNMENTS THROUGHOUT COUNTRY
- AGGRESSIVE PROGRAM OF HARMONIZING DATA
- RAMP-UP OF FSRDCs AND SECURITY PROTOCOLS

STEP III: LINK SURVEYS THAT HAVE IDENTIFIERS

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┌─────────────────┐      ┌─────────────────┐      ┌─────────────────┐      ┌ ─ ─ ─ ─ ─ ─ ─ ─ ┐
│ 1960-90 CENSUS  │      │ 2000-10 CENSUS  │      │ 2008-15 ACS     │        IRS 1040 AND SSA
│ (INC. EDUC.,    │◄────►│ (INC., EDUC.,   │◄────►│ (INCOME, EDUC,  │◄────►  EARNINGS (1978-2015)
│ OCC., WRK.      │      │ OCC., WRK.      │      │ OCC., WRK.      │
│ STATUS, FAMILY  │      │ STATUS, FAMILY  │      │ STATUS, FAMILY  │      └ ─ ─ ─ ─ ─ ─ ─ ─ ┘
│ COMP.)          │      │ COMP.)          │      │ COMP.)          │
└─────────────────┘      └─────────────────┘      └─────────────────┘
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1960-90 CENSUS (INC. EDUC., OCC., WRK. STATUS, FAMILY COMP.)

2000-10 CENSUS (INC., EDUC., OCC., WRK. STATUS, FAMILY COMP.)

2008-15 ACS (INCOME, EDUC, OCC., WRK. STATUS, FAMILY COMP.)

IRS 1040 AND SSA EARNINGS (1978-2015)

PROGRAM DATA (E.G., UI, SNAP, TANF, DISABILITY)

OTHER ADMIN. DATA (E.G., EDUC., IMMIGRATION, CRIMINAL JUSTICE)

SURVEYS (E.G., SIPP)

NOTE: SURVEYS ONLY USED TO DELIVER VARIABLES THAT ARE UNAVAILABLE IN ADMINISTRATIVE SOURCES

THE TWO PAYOFFS

IMPROVED MONITORING OF BASIC SOCIAL INDICATORS

IMPROVED PROGRAM EVALUATION

PAYOFF #1: IMPROVED MONITORING OF KEY SOCIAL INDICATORS

POVERTY
MOBILITY
EDUCATIONAL ATTAINMENT
INCOME AND EARNINGS
INEQUALITY

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AN EXAMPLE OF "MAKING DO"

THE U.S. IS COMMITTED TO DELIVERING HIGH RATES OF SOCIAL AND ECONOMIC
MOBILITY (A KEY MEASURE OF SYSTEMIC HEALTH)

COMMON DEFINITION OF AMERICAN DREAM: CHILDREN HAVE A HIGHER STANDARD OF
LIVING THAN THEIR PARENTS (I.E., "ABSOLUTE MOBILITY")

OPERATIONALIZATION: DO CHILDREN AT AGE 30 HAVE HIGHER INFLATION-ADJUSTED
INCOME THAN THEIR PARENTS (AT SAME AGE)?

DO NOT HAVE A LONG-RUN TIME SERIES … WE'RE RUNNING OUR MOBILITY POLICY IN
THE BLIND

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ABSOLUTE MOBILITY ANALYSIS (CHETTY, GRUSKY, HENDREN, MANDUCA, NARANG, AND HELL)

IF WE'RE WILLING TO MAKE A (BIG) ASSUMPTION, TRENDS IN ABSOLUTE MOBILITY CAN BE CALCULATED *WITHOUT* PANEL DATA OVER TIME

PROCEED INSTEAD WITH THREE TYPES OF INFORMATION:

> INCOME DISTRIBUTIONS FOR CHILDREN OVER THE LAST FOUR DECADES (WHEN CHILDREN ARE AROUND 30 YEARS OLD) ... BASED ON 1970-2014 CURRENT POPULATION SURVEYS

> INCOME DISTRIBUTIONS FOR PARENTS OF THOSE CHILDREN (WHEN PARENTS ARE AROUND 30 YEARS OLD) ... BASED ON 1940-1990 DECENNIAL CENSUSES

> TRANSITION MATRIX INDICATING THE PROBABILITY, FOR EACH ORIGIN PERCENTILE, OF ENDING UP IN EACH POSSIBLE OUTCOME PERCENTILE

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THE TRANSITION MATRIX CLOSE UP

Population tax data for 1980-82 birth cohorts (10 million children) [Chetty, Hendren, Kline, Saez, Turner 2015]

Child's percentile

Parent's percentile

0.21% 0.21% 0.18% 0.19% 0.20%   ...   3.70% 4.39% 4.97% 6.19% 9.65%

Probability of child born into 100th percentile ending up in 1st – 5th percentiles

Probability of child born into 100th percentile ending up in 96th – 100th percentiles
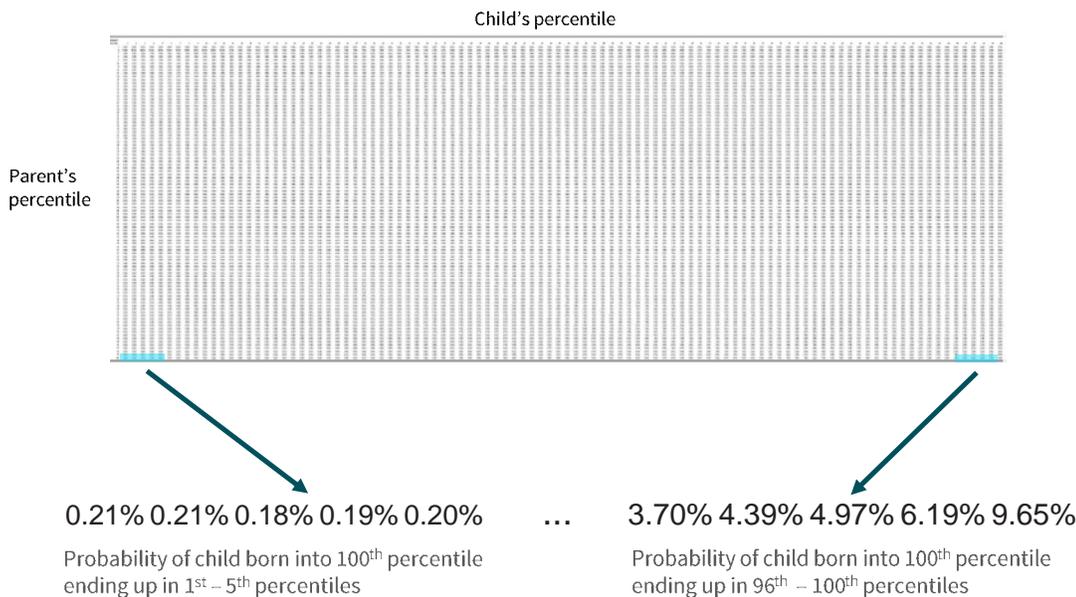
ABSOLUTE MOBILITY FOR 1940 BIRTH COHORT
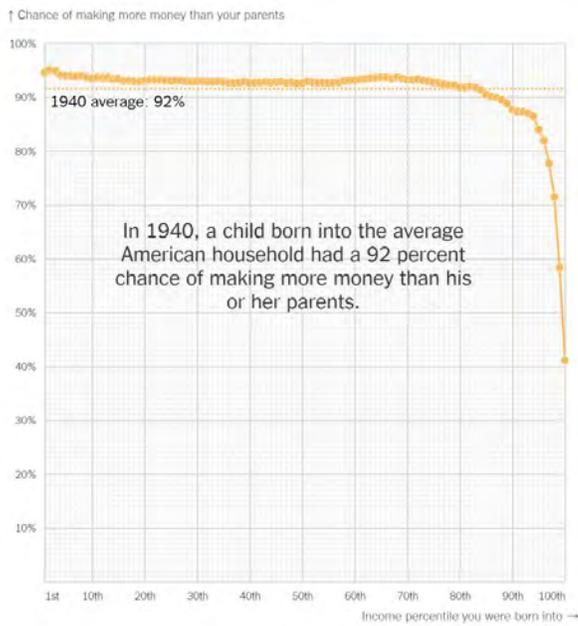
↑ Chance of making more money than your parents

1940 average: 92%

In 1940, a child born into the average American household had a 92 percent chance of making more money than his or her parents.

Income percentile you were born into →

NY TIMES, DEC. 8, 2016, THE FADING AMERICAN DREAM, DAVID LEONHARDT

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ABSOLUTE MOBILITY FOR 1950 BIRTH COHORT
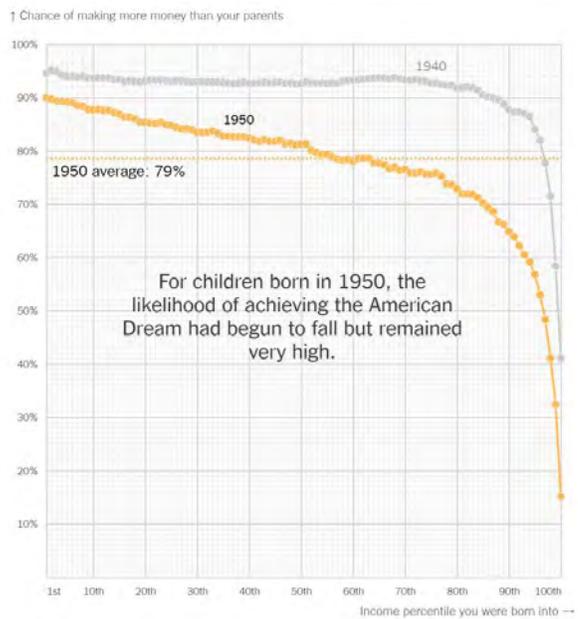
↑ Chance of making more money than your parents

1940

1950

1950 average: 79%

For children born in 1950, the likelihood of achieving the American Dream had begun to fall but remained very high.

Income percentile you were born into →

NY TIMES, DEC. 8, 2016, THE FADING AMERICAN DREAM, DAVID LEONHARDT

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POVERTY AND INEQUALITY

ABSOLUTE MOBILITY FOR ALL BIRTH COHORTS
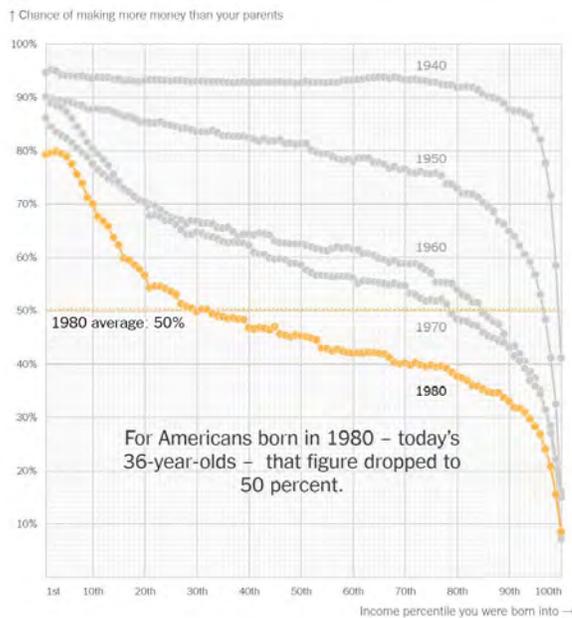
NY TIMES, DEC. 8, 2016, THE FADING AMERICAN DREAM, DAVID LEONHARDT

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IDENTIFYING UPPER AND LOWER BOUNDS UNDER ALL PLAUSIBLE COPULAS
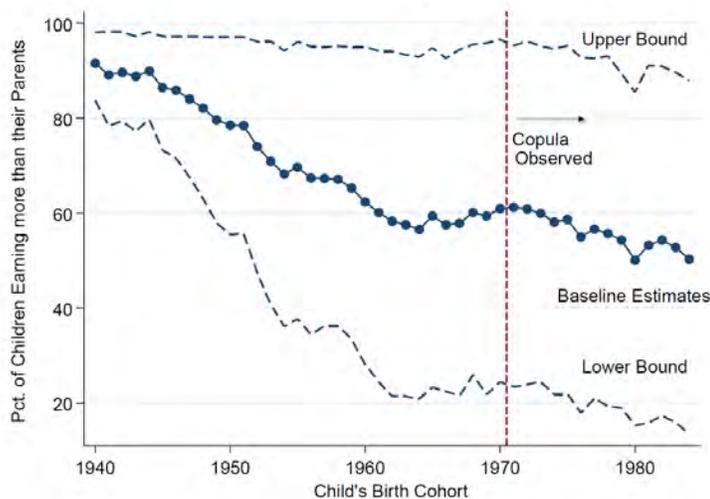
COPULA DOESN'T MATTER IN THE PAST (BECAUSE THE MARGINAL DISTRIBUTIONS ARE DETERMINATIVE)

ALTHOUGH THE COPULA DOES MATTER IN THE PRESENT, THAT'S WHEN WE HAVE THE DATA

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IT SHOULDN'T HAVE TO BE THIS WAY

IMPLICATION: WE CAUGHT A BREAK (I.E., WE ONLY NEED TO KNOW THE COPULA WHEN WE HAPPEN TO HAVE IT)

JUST AN EXAMPLE: ACROSS-THE-BOARD RESORT TO AMERICAN INGENUITY

IT SHOULDN'T BE NECESSARY TO "CATCH A BREAK" TO CARRY OUT THE MOST BASIC TREND ANALYSIS

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PAYOFF #2: PROGRAM EVALUATION WILL ALSO BE TRANSFORMED

LINKED ADMINISTRATIVE DATA WILL FUNDAMENTALLY CHANGE HOW WE EVALUATE EFFECTS OF POLICY, PROGRAMS, EVENTS, AND INSTITUTIONAL PARTICIPATION

A FEW EXAMPLES

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EXAMPLE 1: LONG-RUN EFFECTS SEAMLESSLY TRACKED

THE NUMBER ONE LESSON FROM PROGRAM EVALUATION: DON'T IGNORE THE LONG RUN
- WORRIES ABOUT WASHOUT OF EFFECTS
- WORRIES ABOUT "SLEEPER EFFECTS" THAT SURFACE LATER

BUT LONG-RUN PANEL SURVEYS ARE EXTREMELY EXPENSIVE AND PLAGUED BY ATTRITION

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EXAMPLE 2: INTERGENERATIONAL EFFECTS SEAMLESSLY TRACKED

A PARTICULARLY IMPORTANT TYPE OF LONG-RUN EFFECT: THE INTERGENERATIONAL EFFECT
(E.G., POSITIVE EFFECTS OF EITC ON CHILDREN ... WHEN THEY'RE ADULTS)

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EXAMPLE 3: BIG DATA HAS PAYOFFS

ALLOWS FOR QUASI-EXPERIMENTAL ASSESSMENTS (E.G., USING PLANT CLOSINGS, HURRICANE KATRINA TO IDENTIFY EFFECT OF MOVING)

ALLOWS US TO EVALUATE ONE-SIZE-FITS-ALL POLICY
- IRON LAW OF PROGRAM EVALUATION: HETEROGENEITY OF EFFECTS (ACROSS DEMOGRAPHIC GROUPS, NEIGHBORHOODS, ETC.)
- LINKED ADMINISTRATIVE PANELS ARE LARGE ENOUGH TO EVALUATE PROGRAMS ACROSS WIDE RANGE OF SUBPOPULATIONS

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EXAMPLE 4: EMBEDDED EXPERIMENTS

TRACK EXPERIMENTAL AND CONTROL GROUPS "ON THE NATURAL" WITHIN ADMINISTRATIVE PANEL

EXAMPLE: Y COMBINATOR BASIC INCOME EXPERIMENT IN CALIFORNIA

REDUCES COST OF EXPERIMENTS

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IT'S CHEAP (AND MAINLY ONE-TIME COSTS)

ONE-TIME COSTS

NEGOTIATING AGREEMENTS (BRUTE-FORCE ANALOGUE TO HUMAN GENOME PROJECT)

ADDRESSING INCENTIVES FOR SHARING

LINKING AND HARMONIZING

ONGOING COSTS

APPENDING NEW DATA (LARGELY "SELF-REFRESHING")

EXPLOITING NEW CAPACITY

THE RESULT: WE LEAD THE WORLD IN BUILDING A PUBLIC SECTOR THAT WORKS

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WHY WE MUST DO IT ... NOW

MANY WOULD SAY THAT IT'S TOO HARD AND JUST CAN'T BE DONE ... BUT THERE'S TOO MUCH AT STAKE

MASSIVE PUBLIC SECTOR SAVINGS: AN *EFFECTIVE* LEAN GOVERNMENT MUST RUN VERY CLOSE TO THE EVIDENCE

- INVISIBLE HAND CREATES EFFICIENCIES IN PRIVATE SECTOR
- VISIBLE HAND (OF EVIDENCE) CREATES EFFICIENCIES IN PUBLIC SECTOR (E.G., PAY FOR SUCCESS)

WE'RE LOSING THE INTERNATIONAL COMPETITION

MUST ACT BEFORE CYNICISM SETS IN

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U.S. Census Bureau Infrastructure Overview

Ron Jarmin
Associate Director, Economic Programs

December 12, 2016

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CEP questions

1. Does the model acquire (or ingest) data?
2. Does the model curate data?
3. Does the model link data?
4. Does the model analyze data?
5. Does the model provide for sustainability and scalability?
6. Does the model archive data?

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In a word…

Yes…the Census Bureau acquires, ingests, curates, links, analyzes, and archives data. And, yes, we are striving to promote a sustainable and scaleable model for accessing a range of high-value, sensitive, confidential information.

| Acquire | → | Ingest and Curate | → | Link and Access | → | Analysis | → | Maintain and Archive |

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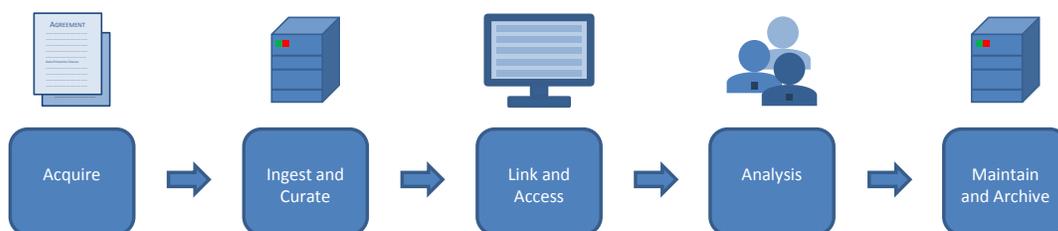
Overview

1. Census Bureau mission and authorities
2. Infrastructure and data assets
3. Enhancements and opportunities

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Mission

The Census Bureau's *mission* is to measure the nation's people and economy. We honor privacy, protect confidentiality, share our expertise globally, and conduct our work openly.

More specifically, how do we realize our mission in the context of evidence-building?

- Increase the awareness and acceptance of administrative data in federal statistics
- Identify, acquire, ingest, process, link, and analyze administrative data
- Create products that demonstrate the value of data linkage and linked data

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Legal framework and authority

Title 13 provides authorities for for protecting and accessing high value information about the nation's population and economy.

Protecting　　**Accessing**

- **6**: acquire and utilize records to the greatest extent possible

- **8**: reimbursable studies and joint statistical projects

- **9**: protect confidential individual and establishment data, limit access, and statistical uses

- **23(c)**: swear in researchers to assist the Census Bureau

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Infrastructure and data assets

external data sources: administrative and 3rd-party data

linked data: products, research, and program evaluation

censuses, surveys, and frames

3 Examples

- CARRA data linkage infrastructure
- Longitudinal-Employer Household Dynamics ("LEHD")
- Federal Statistical Research Data Centers (FSRDC)

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CARRA: individuals and households

Federal data	State data	3rd-party data
• Internal Revenue Service • Housing and Urban Development • Childcare Development Fund • Medicaid and Medicare • Social Security Administration • Veteran's Administration • U.S. Postal Service • Selective Service	• Women, Infants, and Children • Temporary Assistance for Needy Families • Supplemental Nutrition Assistance Program • Low Income Energy Assistance Program • Child Care Subsidy	• Contact frame • Public schools • Property and tax foreclosure

How do I access and use d...

https://www.census.gov/about/adrm/linkage/guidance.html

Census Bureau Administrative Data Inventory

Download Census Bureau
Administrative Data Inventory [PDF - <1.0 MB]

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Coverage? Utility? Frequency?

Childcare Development Fund
Deeds
FHA Borrowers
Foreclosures
HUD Assisted Renters
Indian Health Service
IRS 1040s
IRS Information Returns
LEAP
MBR
Medicaid
Medicare
National Change of Address
National Corrections Reporting System
Numident
Property tax
Selective Service Registrations
SNAP
SSI
TANF
Telephone numbers
WIC

Childcare Development Fund
Deeds
FHA Borrowers
Foreclosures
HUD Assisted Renters
Indian Health Service

IRS 1040

IRS 1099

LEAP
MBR
Medicaid
Medicare
National Change of Address
National Corrections Reporting System

Numident

Property tax
Selective Service Registrations

SNAP

SSI
TANF
Telephone numbers
WIC

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Current evidence-building projects

- Joint work with BJS, BOP, CMS, ERS, IRS, SSA, and VA programs, as well as a forthcoming project with HUD

- Longitudinal linkage projects with ten institutions in seven FSRDCs, the Census Longitudinal Infrastructure Project (CLIP)

- Twelve evidence building pilots, including Chapin Hall pilot projects

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Research Data Centers: **FSRDCs**

- Program created: Census Bureau creates program at HQ in mid-1980's for access to business data

- Institutional Partners
  - First remote location added in 1994
  - 24 locations as of 2016, 6 in development
  - 259 active projects and 100 projects "on deck"

- Federal Partners
  - AHRQ and NCHS join RDC program as partners in 2008.
  - BLS joined in 2016 as a partner
  - Interagency Council on Statistical Policy (ICSP) approves rebranding to Federal Statistical RDCs (**FSRDC**) in 2015

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Physical Locations

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Interconnectivity

Note: Graph includes only external projects. Node (FSRDC) size and color are proportional to the number of sponsored projects. Edge thickness and color are proportional to the number of projects on which each pair of FSRDCs collaborate.

LEHD Infrastructure

QCEW = Quarterly Census of Employment and Wages
UI = Unemployment Insurance
OPM = Office of Personnel Management

Current and planned LEHD projects

- Internal Projects
  - Job-to-Job Flows Data Set
  - Labor Market Outcomes Associated with Military Service
  - Education Pilot

- Other Federal Projects (DOL)
  - Homeless Veterans Reintegration
  - Trade Adjustment Act Evaluation

- External Projects
  - Firm Financial Constraints and Employment
  - Labor Market Implications of External Shocks

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How to access LEHD data

- Internal Projects
  - Partner with Census Bureau researchers
  - Must abide by specific rules stated in Memorandum of Understanding (MOU)
  - Limitations: capacity constraints, state laws, release of state-specific results

- Federal Statistical Research Data Center (FSRDC) Projects
  - Well-established process
  - Additional hurdles for access to full LEHD data

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Enhancements to infrastructure

- Cloud-based data facility in partnership with NYU as Software as a Service (SaaS) platform

- Short-term and long-term solutions for creating and displaying metadata

- Data infrastructure website [http://www.census.gov/about/adrm/linkage.html]

- Research partnerships with DARPA XDATA performers and academic collaborators

- Hardware and software upgrades

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Discussion

Ron Jarmin

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Lucia Foster

Amy O'Hara

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IRS Statistics of Income Division's Joint Statistical Research Program

Barry Johnson,
Director, Statistics of Income

SOI History and Mission

The Revenue Act of 1916 requires the Secretary of the Treasury to publish statistics on the operations of the tax system, at least annually (Internal Revenue Code Section 6108(a))

Statistics of Income Mission

Formulate and execute the statistical policies, practices, and programs of the Internal Revenue Service. Collect, analyze, safeguard, and disseminate information on Federal taxation in support of tax administration, economic policy development, and financial analysis. Serve a broad range of users in the IRS, the Federal government, the public, and the nonprofit sectors. Provide statistical support within the Service for a broad range of program evaluation and measurement analytics. Lead efforts to modernize federal statistical programs and practices through engagement with the federal statistical community.

Statistics of Income

SOI Mission (cont.)

- Unlike agencies that collect data through censuses and surveys, SOI collects its data from the administrative records created from IRS processing of tax and information returns

- Data collected from almost 250 forms and schedules

- SOI uses data from administrative processing to form the core of its products

- SOI adds value by:

  - Collecting additional information from forms, schedules, and attachments

  - Reorganizing information to add consistency

  - Coding data items to make them statistically useful

  - Performing rigorous quality checks to improve accuracy and reliability

3　**Joint Statistical Research Program**

The content of this presentation is the opinion of the writer(s) and does not necessarily represent the opinion of the Internal Revenue Service

Statistics of Income

Joint Statistical Research Program

Goals:

- Provide new understandings of taxpayer behavior that impact the administration of the U.S. tax system

- Provide new insights into ways that existing tax policies affect people, businesses, and the economy

- Suggest tax policy solutions to advance the common good

4　**Joint Statistical Research Program**

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Research Projects Must Support Tax Administration

Internal Revenue Code Section 6103(b)4:

i) the administration, management, conduct, direction, and supervision of the execution and application of the internal revenue laws or related statutes (or equivalent laws and statutes of a State) and tax conventions to which the United States is a party, and

(ii) the development and formulation of Federal tax policy relating to existing or proposed internal revenue laws, related statutes, and tax conventions

5 **Joint Statistical Research Program**

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Project Management - Data

- o Access to all available IRS data and SOI samples, as required to support specific projects including
  - Longitudinal administrative data sets
  - Curated cross-section and panel sample files
- o Able to bring in non-IRS data for linkage to IRS files:
  - Researcher must obtained license/ permission
  - License must explicitly permit linkage
- o Access data primarily at IRS facilities using IRS equipment
  - Exploring placing IRS equipment at Federal Statistical Data Centers for researcher convenience

Joint Statistical Research Program

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Project Management - Arrangements

- Some projects do not require research access to data
- Data access vehicles include:
  - Intergovernmental Personal Mobility Arrangement (IPA)
  - Student Volunteer Agreement
  - Contract
- When accessing data, researchers:
  - Must undergo full background investigation and data security and protection training
  - Are subject to disclosure penalties and prosecution
- Projects ideally last 2 years, but extensions are possible to:
  - Facilitate peer review comments
  - Expand work particularly beneficial to tax administration

7   **Joint Statistical Research Program**

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Project Management – SOI Staff Role

SOI assigns all projects to staff with subject-matter expertise:

- Serve as technical resources and ensure compliance with project scope and performance period

- Review all interim and final products for compliance with data-use limitations, contract guidelines, and disclosure limitation standards

- Manage administrative processes
  - SOI must rely on shared HCO and contract management resources
  - Technology support and equipment availability vary depending on geographic location of researcher

8   **Joint Statistical Research Program**

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Statistics of Income

Project Solicitation and Selection

o Solicitation of proposals:

- Email to SOI Listserv subscribers and through various professional organization mailing lists
- Presentations at NTA, NBER

o Evaluation criteria:

- Tax administration relevance, contribution to IRS goals and mission
- Data availability
- Availability of SOI staff to participate in and/or oversee work
- Researcher skills, quality of research plan, proposed timeframe

o Projects selected by committee of IRS and U.S. Treasury Department staff

9   **Joint Statistical Research Program**
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Research Projects

Call for proposals	Number of applicants	Number of projects selected	Number of institutions represented*
2008	10	4	5
2012	51	17	13
2014	80	12	17
2016	Call for proposals announced 11/9/16 and closes 12/31/16		

* Some projects bring together researchers from multiple institutions

10   **Joint Statistical Research Program**
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Selected Research Contributions:

- The impact of tax expenditures and methods for increasing program participation
- Measures of intergenerational income mobility
- The impact of education tax credits
- Understanding how workers use taxable withdraws of pension funds
- The effects of tax rates on labor-force participation and migration
- Compliance studies – auditor effects, impact of offshore voluntary disclosure
- New understandings of business behavior

11 **Joint Statistical Research Program**
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Additional Benefits of a Research Program

Administrative Data Enhancements

- IRS Data Bank
  - Basic individual level data
  - Variables needed to link to additional information
  - Improved metadata
  - Adding data from information documents (W-2, 1099, etc.)
- Improved analytical tools - Stata and R
- Improved management of computing space and processing techniques

Enhancements to publicly released products

- New income data tabulations
- Redesigned public-use individual income tax file
- New data on low-income earners (forthcoming)
- Better understanding of flow-through businesses

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Questions?

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U.S. DEPARTMENT OF EDUCATION

IES Data Licensing Program

Marilyn M. Seastrom, Ph.D.

Presentation for the
Commission on Evidence-Based Policymaking
December 12, 2016
Washington, DC

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U.S. DEPARTMENT OF EDUCATION

Legal Context: Privacy Law

The Privacy Act of 1974 (5 U.S.C. 552a)

- Governs the collection, maintenance, use, and dissemination of personally identifiable information (PII) about individuals maintained by Federal agencies

- No agency shall disclose any record to any person without the prior written consent of the individual (there are certain exceptions)

- A willful disclosure could result in a misdemeanor and fine of not more than $5,000

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Legal Context: Confidentiality Law

The Family Educational Rights and Privacy Act (20 U.S.C. § 1232g; 34 CFR Part 99) protects the privacy of student education records

- FERPA applies to all schools that receive funds under an applicable program of the U.S. Department of Education

- FERPA allows schools to disclose those records to specified officials for audit or evaluation purposes

- FERPA applies to administrative record data that NCES obtains from the school or institution without the explicit written consent of the parent or student

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U.S. DEPARTMENT OF EDUCATION

Legal Context: Confidentiality Law

Confidential Information Protection and Statistical Efficiency Act (CIPSEA) of 2002 (P.L. 107-347, Title V)

- Protects personally identifying information from disclosure when information is collected under a pledge of confidentiality and for statistical purposes

- A willful disclosure could result in a class E felony with fines up to $250,000 and/or up to five years in prison

- Allows an agency's agents to access restricted data.

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U.S. DEPARTMENT OF EDUCATION

Legal Context: IES Confidentiality Law

Education Sciences Reform Act (ESRA) of 2002 -
Confidentiality Section (20 U.S.C. 9573)

- All individually identifiable information about students, their families, and their schools shall remain confidential

- Individually identifiable information is immune from the legal process and cannot be used in any judicial proceeding (except in the case of terrorism

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Legal Context: IES Confidentiality Law

- Under the IES confidentiality law, no person may:

  - Use any individually identifiable information for a non-statistical purpose (except in the case of terrorism)

  - Release data that could identify a person, or

  - Permit unauthorized persons to examine the individual data

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Legal Context: IES Confidentiality Law

- Under the IES confidentiality law, Federal employees, contractors, and licensees who are obligated to obey this law and who knowingly disclose any individually identifiable information, will be subject to a class E felony with fines up to $250,000 and/or up to five years in prison

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Data Curation: IES Confidentiality Procedures

- Disclosure Review Board—IES technical staff
  - Approve data perturbations
  - Clear files for release
    - Direct identifiers are removed—de-identified restricted use file
    - Sensitive information is removed or recoded— anonymized public use file
      - Top- and bottom-coding
      - Categories

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Data Linkage: IES Confidentiality Procedures

- Restricted use data may be linked to
  - Department of Education administrative data at the student and institution levels
  - Other Federal data at the student level
  - External third party data at the student and institution levels
  - Aggregate data from Census/ACS using geocodes

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Data Access: IES Confidentiality Procedures

- **Data Analysis Systems**—user specified tabulations are provided online using restricted use data
  - National Data Explorer (NDE)—NAEP
  - International Data Explorer (IDE)—TIMSS, PISA, PIRLS, PIAAC
  - PowerStats—NPSAS, BPS, B&B, ELS, HSLS, SSOCS
- **Restricted Use Data Licensing**—Qualified external researchers are provided access through a licensing agreement

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Background: IES Data Licensing Program

- Legislation provides the basis for the IES Data Licensing Program
- The IES Director may utilize temporary staff, including employees of Federal, State, or local agencies and employees of private organizations to assist in performing the agency's responsibilities, but only if such temporary staff are sworn to observe the IES confidentiality law (see 20 U.S.C. 9573 (d)(3)).

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Background: IES Data Licensing Program

- Non-IES data users are loaned restricted use data through a license (contract)
- The license is between IES, the user, and the user's organization (e.g., a university, a research institution, or company)
- Licensed users agree to the terms of the IES confidentiality law
- IES loans restricted-use data only to qualified organizations in the 50 States and DC

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Background: IES Data Licensing Program

- History of program:
  - 1989: Initiated talks with OMB to start a trial data licensing system; Developed protocol and legal documents
  - 1991: First license issued
  - 2000: 502 restricted-use licenses
  - 2002: NCES program expanded to IES (ESRA)
  - 2007: Implemented electronic application system
  - 2016: 1,261 restricted-use licenses

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Application: IES Data Licensing Program:

- Submit a formal online request, including
  - Name, title, institutional affiliation, full address, phone number, and e-mail address (researcher only) for the
    - Researcher
    - Senior Official
    - System Security Officer
  - A list of all authorized users on the data license, and
  - Information describing the project (see next slide)

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Application: IES Data Licensing Program

- Information describing the project includes

  - The name, year and subject matter of the data file(s) requested

  - Non IES FERPA protected data, whether the proposed work is to be conducted as a special study, or for or on behalf of a school or institution

  - The project title and a brief description of the research objective and how the requested data will be used

  - An explanation of why the public-use files cannot meet the researcher's need

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Application: IES Data Licensing Program

- Information describing the project includes (continued)

  - A description of any data that will be linked to the requested data

  - An indication of which education sectors will be served by the project

  - An agreement that the requested data will not be used for any administrative or regulatory purpose

  - The length of the requested loan

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Application: IES Data Licensing Program

- The licensee must submit hard copy of

    - Signed license (data use agreement)

    - Signed and notarized affidavits of nondisclosure for each user on license

    - Signed security plan form

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Data Access: Data Licensing Program

- The licensee must agree to
    - Keep the data safe from unauthorized disclosures at all times
    - Participate in unannounced, unscheduled inspections to ensure compliance with license terms and required security procedures
    - Read the *Restricted-Use Data Procedures Manual*.
      http://nces.ed.gov/pubs96/96860rev.pdf
    - Ensure that all users listed on the license read, understand, and follow the license and security plan requirements.

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Analysis: IES Data Licensing Program

- The licensee must agree to

    - Use the ED approved procedure for reporting out tabular results

    - Submit all draft information products to IES for disclosure review

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Analysis: IES Data Licensing Program

- To maintain confidentiality in reports, tabular results must be published

    - With unweighted counts rounded to the nearest 10 or 50

    - As is, if perturbations are present

    - Collapsing tables (columns and/or rows) until there are at least 3 respondents in every cell, if no perturbations

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Maintenance: IES Data Licensing Program

- The licensee must

  - Notify IES immediately if licensee receives any legal or other demand for the data

  - Use the online license system to notify IES of the following types of changes

    - Project operations or security procedures

    - Departures or additions of the project staff

    - The need for additional data

  - Maintain a file of all license documents, amendments and affidavits

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Maintenance: IES Data Licensing Program

- The licensee must (continued)

  - Only keep and access the restricted-use data on a standalone desktop computer.

  - Never place the data on a laptop computer, server, external hard drive or UBS memory stick

  - Purge and overwrite the computer's hard drive before attaching the computer to a modem or network (LAN connection/internet).

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Maintenance: IES Data Licensing Program

- The licensee must (continued)

    - Ensure that only those persons listed on the license have access to the secure project office

    - Ensure that secure project office keys are returned and computer login disabled within 24 hours after any staff leave the project

    - Immediately notify IES of staff changes via amendment

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Closeout: IES Data Licensing Program

- The licensee must:

    - Close the license when the research is completed or the license terminates

        - The restricted-use data and all other individually identifiable information (e.g., the one backup copy, working notes) must be returned to IES or destroyed under IES supervision and procedures

        - The Close-out Certification Form must be sent to IES to complete the license close-out process.

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Operations: IES Management of Licenses

- Review license applications in a transparent matter and track all review outcomes

- Conduct disclosure reviews of work products within 5 business days

- Use physical site inspections and personal interviews to ensure security compliance

- Immediately follow-up with licensee on minor and major license violations

- Review the site inspector's work

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Operations: IES Management of Licenses

- Maintain complete, detailed license records (amendments and users) in searchable format
- Maintain up-to-date contact information on all licensees
- Send security reminders to licensees (via email)
- Track license expiration dates and notify licensee about pending license closure
- Employ agency licensing staff that are detail oriented, efficient, and vigilant

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Useful Web Resources for Licensing Info

Restricted-use Data License Program:
http://nces.ed.gov/statprog/instruct.asp
Restricted-Use Data Procedures Manual:
http://nces.ed.gov/pubs96/96860rev.pdf
Access Your License in the IES Online System:
https://nces.ed.gov/statprog/licenseapp/requestemail.asp
How to Submit a License Amendment:
https://nces.ed.gov/statprog/instruct_mod.asp
Frequently Asked Questions:
https://nces.ed.gov/statprog/instruct_licensing_faq.asp
https://nces.ed.gov/statprog/instruct_access_faq.asp

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IES Confidentiality Program Information

Confidentiality Program overview:
http://nces.ed.gov/statprog/confproc.asp
Confidentiality laws:
http://nces.ed.gov/statprog/conflaws.asp
Confidentiality standard:
http://nces.ed.gov/statprog/2002/std4_2.asp

Questions?   Contact:

Marilyn M. Seastrom	Shelley Burns
marilyn.seastrom@ed.gov	shelley.burns@ed.gov
(202) 245-7766	(202) 245-7279

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Definitions

- **De-identified** information is used to describe records that have enough personally identifiable information removed or obscured, such that the remaining information does not identify a specific individual. Each record includes a re-identification code that can be used by the data manager with a linking key to identify the individual.

- **Anonymization**—data are de-identified, AND do not include a re-identification code; that is, the data cannot be linked back to a file with identifiable data. Anonymized data may also have been subjected to additional statistical disclosure limitation techniques.

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January 13, 2017 Meeting

DEUTSCHE BUNDESBANK EUROSYSTEM

Access to Administrative Data in the Bundesbank

Stefan Bender, Head of Research Data and Service Center (RDSC), Deutsche Bundesbank

US Commission International Panel

Washington, D.C. 13 January 2017

(The views expressed here do not necessarily reflect the opinion of the Deutsche Bundesbank or the Eurosystem.)

Data Access in Germany: Historical Development
Where do we come from?

1990s	1998	2001	2004	2016
Access to official statistics was virtually impossible, or very costly	Bottom-up initiative of the research community and data producers	The first research data centers were established	The German Data Forum was established by the Federal Government	30 accredited Research Data Centers

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13 January 2017
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Policy evaluation can make better use of existing datasets

- **The Bundesbank – like other central banks – produces datasets which are highly valuable for policy analysis and research.**
  - So far, most of these datasets have been used to provide aggregate statistics and ad hoc analysis of specific policy issues.
  - There is significant knowledge of data and institutional background.
- **Systematic use of these data for policy analysis is often constrained by**
  - Time
  - IT-resources
  - Legal restrictions
- **The Bundesbank has launched a large-scale initiative aimed at making better use of existing data both, for policy analysis as well as internal and external researchers.**

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13 January 2017
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**Scope of the Bundesbank's
Research Data and Service Center (RDSC)**

- **The RDSC is part of the Bundesbank internal project Integrated MicroData-based Information and Analysis System (IMIDIAS)**
- **Goals of IMIDIAS:**
  - Support policymaking process
  - Encourage cooperation with (external) researchers
  - Promote evidence-based policy-making
- **Key principles:**
  - Data as a public good
  - Transparent data access
  - Data protection

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13 January 2017
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Additional Aspects and Arguments for a RDSC

- **Trust** in researchers needed

- **Data quality** will increase

- **More results** on needed content and topics

- **Better knowledge** on data and content (recruitment)

- **„Branding"**, *„Marketing"*

Factsheet on the RDSC of the Bundesbank

- The RDSC has started in 2014 as part of the Statistics Department of the Bundesbank.

- **The RDSC offers access for non-commercial research to (highly sensitive) micro data of the Bundesbank for free!**

- Over 100 new projects in 2016.

- 14 employees (in 2017 at least 18).

- 12 working places for guest researchers.

Microdata Structure at Deutsche Bundesbank
What treasures does the Bundesbank hide?
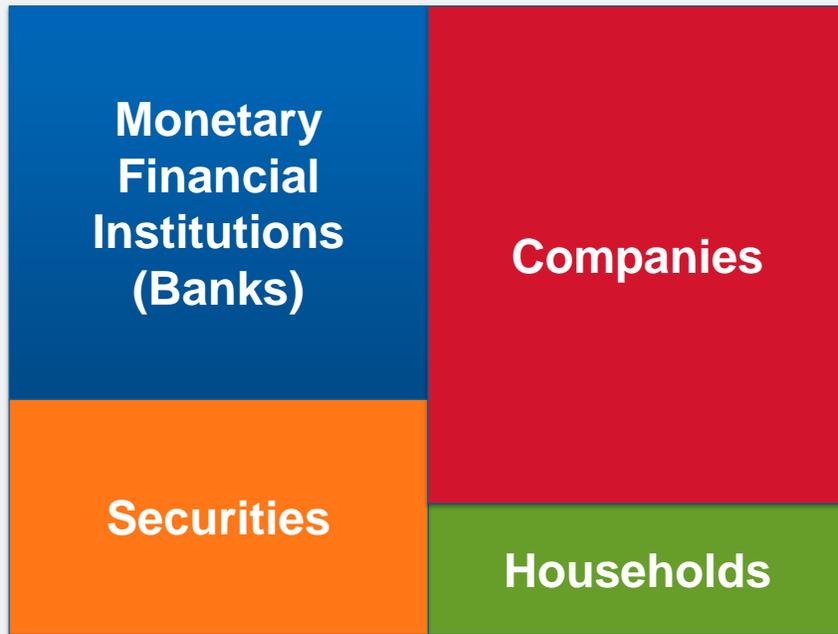
Bender: United States Commission on Evidence-Based Policymaking
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Page 7

Microdata Structure at Deutsche Bundesbank
What treasures does the Bundesbank hide?

Bender: United States Commission on Evidence-Based Policymaking
13 January 2017
Page 8
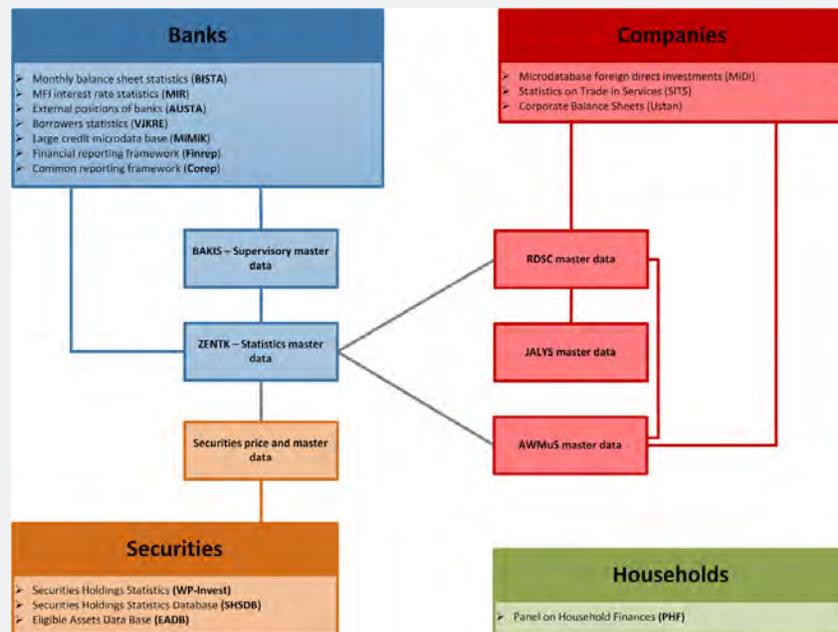
The 5 Safes in the RDSC (Portfolio Approach)

- **Safe people**: non-disclosure agreement, contract (with penalty up to 60,000 Euro, publishing the name, exclusion from access up to 2 years).
- **Safe projects**: non-commercial research, project description.
- **Safe environment**: working places without internet connection, (cell) phone, photo, printer and drive.
- **Safe data**: (weakly) anonymized data.
- **Safe results**: output control, papers/presentations are checked.

- **Access to real data**, anonymization is only one dimension, others have more effects on data protection.

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"German Lessons"

- **Development** was/is fast, but **incremental**:
  trust building, growing data complexity, learning process …

- (New) **skills** for researchers / data producers.

- **Engagement** of researchers (value of data work?).

- **Efficiency**: researcher passport, metadata system (with elements of tripadvisor, amazon), project management in a RDC, …

- **Harmonization/Internationalization**: G20 initiative on data sharing and data access of central banks. INEXDA network of 5 central banks has started: France, Italy, Germany, Portugal, UK.

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Information and Contact

German Data Forum: http://www.ratswd.de/en/start

Deutsche Bundesbank: http://www.bundesbank.de/rdsc

Stefan Bender:	**stefan.bender@bundesbank.de**
Website:	**www.bundesbank.de/rdsc**
Contact:	**fdsz-data@bundesbank.de**

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Tasks of the RDSC (in more Detail)

The RDSC offers access for non-commercial research to (highly sensitive) micro data of the Bundesbank:

- Generate (linked) micro data

- Offer advisory service on data selection and data access (data handling, research potential, scope and validity of data)

- Provide data access and data protection

- Document data and methodological aspects of the data

- Work on own research projects (in close cooperation with the Bank's business areas and the **Research Centre**)

- Organize conferences and workshops

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Data Access at the RDSC

Data Producers
- Survey studies
- Official statistics
- (External/Big Data)

RDSC

Data users

- RDSC mediates between data producers and external users.
- RDSC controls for compliance with data protection regulations.

Modes of Data Access

Off-Site Access		On-Site Access
Email, encrypted (Scientific Use File)	Remote Execution	Guest Stay
Factually anonymous	Weakly anonymous (= confidential)	
Output control		
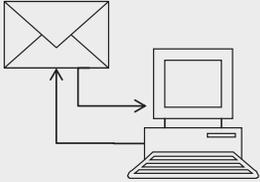
RDC of the Federal Employment Agency

- The RDC of the Federal Employment Agency in the Institute for Employment Research offers access for non-commercial research to (highly sensitive) admin data (social security records), surveys and their linkages for free.

- Access thru 2 sites in the UK and 6 sites in the US.

- Remote Access via JoSuA (Job Submission Application) with

  - Two modes of output: internal use or publication mode,

  - Internal use mode is treated like a microdata use.

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German Data Forum: Key Facts

- Advisory council to the federal government

- 16 members: 8 data producers / 8 data users from research

- Development of a research data infrastructure for the social, behavioral, and economic sciences

- Accreditation of 30 research data centres

- Facilitating access to high-quality data

- Result of independent initiatives from within the scientific community

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The North Carolina Education Research Data Center

Kenneth A. Dodge
Founding Director

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Increased Demand for High-Quality Research in Education Policy

- Prior to 2000, studies in education policy had been plagued by poor-quality data with small, non-representative samples and no prospective follow-up.

- Era of evidence increased demand for better analysis.

- No Child Left Behind Act increased collection of high-quality data, for accountability purposes. In NC, data collection had started in 1990s with its ABCs program.

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Establishment of the
NC Education Research Data Center

- A partnership between Duke University and the NC Department of Public Instruction

- Established in January 2001, renewed through 2021

- Initially funded by Spencer Foundation, now fees

- 375 approved research projects, 50 dissertations
  - Half initiated outside of NC
  - All for research, not for political use or journalism

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Basic Terms

- NCERDC acts as agent of NC DPI.
- DPI provides electronic data files to NCERDC.
  - 4,000 files per year; identifiers intact
- Legal authorization: "to improve education of children in NC"
- NCERDC cleans, stores, merges files.
- Researchers apply to receive customized, de-identified data files for a specific study.
- Four-person board establishes policy, ensures data security, and reviews requests.

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NCERDC Structure
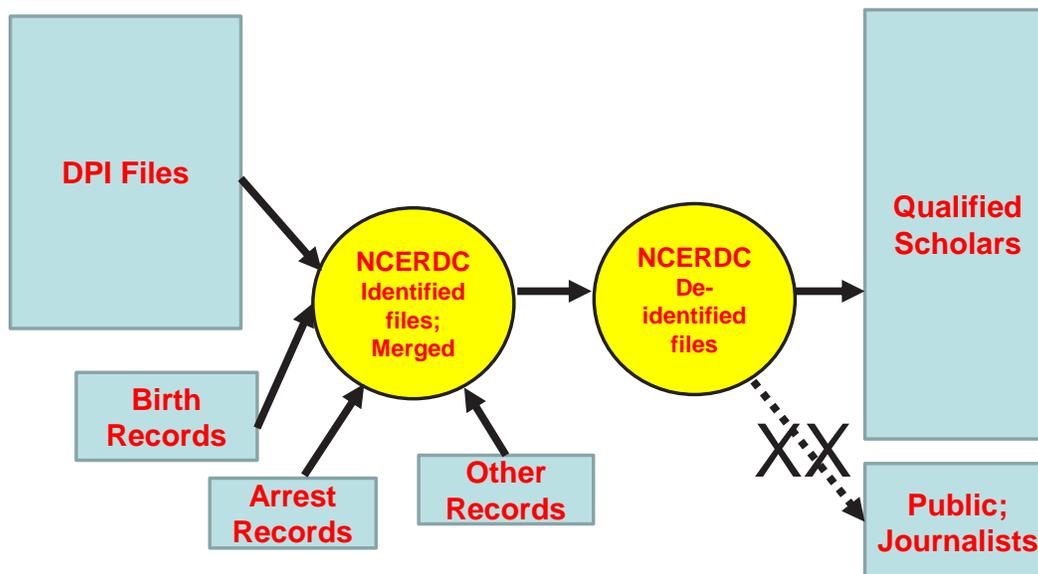
Data Files in NCERDC

- ➢ Annual student files
    - ➢ 1,459,852 children in 2,592 charter & public schools
    - ➢ Test scores, special ed, graduation, discipline
    - ➢ Teacher and principal credentials; $$$ school information

- ➢ Merged longitudinally back to 1993

- ➢ Can be merged with other files
    - ➢ Birth records, child abuse registry, arrest, Medicaid, higher education
    - ➢ Can create peer context information
    - ➢ Add local context data, such as job losses and natural disasters

Examples

- Evaluate impact of funding for pre-kindergarten program
  - State funding varied (randomly) across 100 counties and 20 years
  - Find that: Children living in well-funded counties at age 4 have higher test scores in elementary school at least through grade 5

- Evaluate impact of lead exposure on student outcomes
  - Find that: Higher lead in housing walls associated w/ lower test scores

- Evaluate impact of middle school on student trajectories
  - 85% of districts have k-5, 6-8, 9-12 system (others have k-6 or k-8)
  - Sixth graders in k-5 system have more substance use infractions
    - Same students have worse outcomes in high school

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National Opportunities

- NSF Network co-led by D. Figlio and K. Dodge
  - 60 scholars and state-level ed policy leaders
- Statewide Longitudinal Data Systems (SLDS)
  - > $600 million to states to develop databases
  - Little used for research, to date
- Race to the Top and Early Learning Challenge
- Barriers can be overcome
  - Legal, through statute
  - Data security, through standards
  - Relationships of trust, through incentives and careful use
  - Public will, through leadership

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Increasing the use of state and local
administrative data for evidence-building
Robert M. Goerge

Presentation to the
Commission on Evidence-Based Policymaking
January 13, 2016

ChapinHall at the University of Chicago
Policy research that benefits children, families, and their communities

Goals for presentation

- Chapin Hall background
- Partnerships with data providers (federal, state and local agencies) to facilitate access to data
- Importance and uniqueness of state and local data for federal evidence and policy purposes
- Discuss a pilot project to understand the demand for linkage to federal data sources, methods and use cases

ChapinHall

Chapin Hall at the University of Chicago

- Provide public and private decision-makers with rigorous data analysis and achievable solutions for improving the lives of children, youth and families

- Our audiences are policymakers and funders, government and private agency leaders, and researchers

- Our ongoing partnerships with public systems, institutions, organizations, and programs are a core strategy to achieve our mission

ChapinHall

Data that supports large scale evidence-building

- Focus on:
  - Linked administrative datasets or administrative data linked to survey data
  - Microdata on individual, families or providers (organizations or individuals) with personally identifiable information (PII)
  - "Universe" data or data on the entire population so that sub-state or sub-group analyses can be done
  - Historical data to do longitudinal analysis
  - Going to scale!

ChapinHall

Need a partnership with the data providers

- Most federal, state and local agency leaders and policymakers don't want to be "researched"
- **It's their data!! The vast majority (if not all) do not have to provide their data to researchers**
- Therefore, they need to see the benefit in providing access to their data to researchers OR to other government agencies
- They need to feel confident that they will be included and not be treated at arm's length in any specific research endeavor
- This is a different way of how research has been done in the past

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The partnership

- What is different in order to build a relationship
  - Need to include input from agency staff
  - Need participation from agency staff in the substance and design, but not the doing of it
  - Need them to review results before external audiences see them
  - Need them to have a chance to respond through actions or words to the research
- Only with such a partnership will they perhaps see a benefit and provide their data **ChapinHall**

Why administrative data from states

- Many federal programs implemented by states report microdata to federal agencies.
- These data make up many of the federal datasets
- **This federal data, however, is very different in format and content** from the data that is maintained and analyzed by the state agencies themselves or by external parties that are provided the state's data
- The state data is what should be put into an administrative data clearinghouse
- Data may be transformed, de-identified, sampled or be restricted in its use when sent to the federal agency

ChapinHall

Examples of federal datasets that are close, but richer when accessed from the state

- UI (Unemployment Insurance) quarterly wage data at the Census
  - All states, no sampling, up to date
  - Common format
  - However, not all states allow it to be used for non-LEHD purposes
- Adoption and Foster Care Reporting System
  - All states, no sampling, up to date
  - Common format
  - However, no identifiers, 6 month summaries

ChapinHall

Transformed data example - TANF

- Temporary Assistance to Needy Families
- HHS Office of Family Assistance receives an <u>annual</u> summary record of characteristics, benefits, services and outcomes of individual and families on TANF from each state in a specific format so that the data is comparable across states and can be used for national reporting purposes
- Universe data from 30 states

ChapinHall

De-identified data – Child care subsidies

- Child Care Development Fund - CCDF
- Often the largest work support program in the state
- Recently, the reauthorization of the CCDF program removed the requirement of providing PII (Social Security Numbers) to HHS for parents and children participating in this program

ChapinHall

Sampled data – SNAP Quality Control

- Data for "conducting quality control (QC) reviews of Supplemental Nutrition Assistance Program (SNAP) cases"
- Statistical sample
- While other data could be linked to this sample, the size of the sample prohibits sub-state analysis
- Cannot look at SNAP receipt as an outcome

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Restricted data - NDNH

- National Directory of New Hires contains
  - New Hires
  - Quarterly Wage (QW)
  - Unemployment Insurance (UI)
- Researchers can only use if it is de-identified, or
- "for research purposes found by the Secretary of Health and Human Services (HHS) to be likely to contribute to achieving the purposes of Part A or Part D of the Social Security Act."
- 2 years of data is maintained by HHS

ChapinHall

"Raw" state administrative data is richer

- Data pulled from state information systems for either their own analysis or analysis by external parties (Chapin Hall, CARRA …)
- Contains state-specific variables (fields) and identifiers necessary for the state to **implement** the program
- Richness of sub-year variation, non-summarized data and the ability to calculate and transform to fit research question

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Multi-state studies with state data

- If we are not going to use federally help data which is comparable, what had to be done?
- Data has to be made comparable
  - Often little or no metadata
  - Requires researchers have significant subject matter and local service system expertise
- However, the richness of a particular state's data can enhance the analyses
  - A state may have more historical data

Chapin Hall

Using Linked Data to Advance Evidence-Based Policymaking

- Demonstrate an efficient way to link state and local data to Census-held data to answer important questions while protecting privacy
- Create compelling use cases for strengthening the Census linkage infrastructure to serve multiple levels of government
- Inform Federal, state, and local strategies for facilitating data linkage across programs
- Supported by the Laura and John Arnold Foundation
- CARRA is a collaborator with CH on this project
- Distributed an RFP for research projects linking 'PI-held' data to data held by the Census Bureau

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Response to RFP

- 17 responses to the call for full project proposals
- 25 responses to the call for letters of interests
- Individuals and organizations ranged from researchers in state and local government agencies, local and national advocacy organizations, research organizations, and universities
- Less than a handful were below par

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Primary interests for Census held data

- Employment
- Post-secondary education
- Public benefits: Medicaid, Medicare, SSI, SNAP, TANF, HUD
- Decennial Census, American Community Survey
- Topics included:
  - long-term follow-up of welfare reform experiments;
  - study of evicted households;
  - long-term follow-up of students K-12
  - public aid for post-secondary education
  - health outcomes over the life course

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Data being brought by investigators

- County-level integrated human services data
- County court records
- State birth certificates
- State post-secondary records
- State juvenile justice youth population
- State/county public benefit receipt
- K-12 student data
- Applications for state and federal financial aid for college

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Appendix A: Proposal Topics

- Education: preschool, K-12, post-secondary
- Employment
- Minimum wage
- Housing: homelessness, eviction, mobility
- Criminal justice
- Health
- Lead exposure
- Suicide
- Disaster preparedness
- Intergenerational poverty
- Multi-system families
- Child support
- Eligibility determination
- Food insecurity/SNAP
- Refugees
- Immigration
- Predictive analytics
- Taxation
- Federal regulation

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Appendix B: Proposal Methodologies

- Descriptive studies
- Needs assessment
- Eligibility/program take-up
- Long-term follow-up of RCTs
- Quasi-experimental studies
- Regression discontinuity
- Propensity score matching
- Difference-in-difference
- Longitudinal analysis
- Life course/trajectory models
- Policy analysis
- Predictive analytics
- Data linkage/warehouses
- Cluster analysis
- GIS/mapping

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Supporting Delivery System Transformation Through Data Integration and Analytics

David Mancuso, PhD • January 13, 2017

DSHS | Research and Data Analysis

WASHINGTON STATE DEPARTMENT OF SOCIAL AND HEALTH SERVICES   1

Analytics in the State Social and Health Service Environment

▸ **Medicaid expenditures are disproportionately concentrated in populations with multiple comorbid physical and/or behavioral health conditions**

▸ **Overall social and health service program costs are driven by a relatively small number of persons with overlapping risk factors and service needs,** often exacerbated by extreme poverty, trauma, mental illness, substance use disorders, cognitive limitations or functional impairments

▸ **High-cost clients often have significant social support needs** such as the need for economic, housing or employment support, or interventions to reduce the risk of criminal justice involvement

▸ **Increased demand to use state agency data to directly inform care**

▸ **Increased emphasis on quality/outcome measurement and value-based payment structures**

DSHS | Research and Data Analysis

WASHINGTON STATE DEPARTMENT OF SOCIAL AND HEALTH SERVICES   2

Data Sources in the DSHS Integrated Client Databases

Slide 3: A diagram titled "Data Sources in the DSHS Integrated Client Databases" showing external and internal data sources connected to the Washington State Department of Social and Health Services Integrated Client Databases.

External data sources (top):
- **Education Research Data Center** (*De-identified*): School Outcomes Preschool – College
- **Washington State Patrol**: Arrests
- **Administrative Office of the Courts**: Charges, Convictions
- **Department of Corrections**: Incarcerations, Community Supervision
- **Health Care Authority**: Dental Services, Medical Eligibility, Hospital Inpatient/ Outpatient, Managed Care, Physician Services, Prescription Drugs
- **Employment Security Department**: Hours, Wages
- **Department of Health**: Births, Deaths
- **Department of Commerce**: Housing Assistance, Emergency Shelter, Transitional Housing, Homeless Prevention and Rapid Re-housing, Permanent Supportive Housing
- **Housing and Urban Development** *Public Housing Authority*: Public Housing, Housing Choice Vouchers, Multi-Family Project-Based Vouchers

External / **Internal**

WASHINGTON STATE Department of Social and Health Services **Integrated Client Databases**

Internal (bottom):
- **DSHS Aging and Long-Term Support**: Nursing Facilities, In-home Services, Community Residential Services, Functional Assessments
- **DSHS Children's Services**: Child Protective Services, Child Welfare Services, Adoption, Adoption Support, Child Care, Out of Home Placement, Voluntary Services, Family Reconciliation Services
- **DSHS Developmental Disabilities**: Case Management, Community Residential Services, Personal Care Support, Residential Habilitation Centers and Nursing Facilities
- **DSHS Behavioral Health** *Mental Health and Substance Abuse Services*: Assessments, Detoxification, Opiate Substitution Treatment, Outpatient Treatment, Residential Treatment, Child Study Treatment Center, Children's Long-term Inpatient Program, Community Inpatient Evaluation/ Treatment, Community Services, State Hospitals
- **DSHS Economic Services**: Food Stamps, TANF and State Family Assistance, General Assistance, Child Support Services, Working Connections Child Care
- **DSHS Juvenile Rehabilitation**: Institutions, Dispositional Alternative, Community Placement, Parole
- **DSHS Vocational Rehabilitation**: Medical and Psychological Services, Training, Education, Supplies, Case Management, Vocational Assessments

DSHS | Research and Data Analysis

How do we use integrated administrative data?

▶ **Policy analysis**
– Example: describing the link between ED utilization and prescription narcotic drug-seeking behavior

▶ **Program evaluation**
– Example: evaluating the impact of SUD treatment on health care costs and criminal justice involvement

▶ **Predictive modeling and clinical decision support**
– Example: dynamic patient-level risk scoring to identify high-risk dual Medicare/Medicaid enrollees for engagement in Health Homes and to support direct patient care

▶ **Performance measurement**
– Example: monitoring health care quality, utilization and "social determinant" outcome measures

DSHS | Research and Data Analysis

Examples of Policy Analyses (and Other Content) Published in 2016

https://www.dshs.wa.gov/sesa/rda/research-reports

DSHS | Research and Data Analysis

WASHINGTON STATE DEPARTMENT OF SOCIAL AND HEALTH SERVICES

5

Program Evaluation

Peer-Reviewed Journal Quality Is Possible on a Rapid-Cycle Timeline

▸ **Example: "Care Coordination Program for Washington State Medicaid Enrollees Reduced Inpatient Hospital Costs" published in April 2015 Health Affairs**

  – Statistically significant reduction in hospital costs

  – Promising reduction in overall Medicaid medical costs

http://content.healthaffairs.org/search?submit=yes&fulltext=care+coordination+program+for+washington+state+medicaid+enrollees+reduced+inpatient+hospital+costs&x=0&y=0

OVERALL
Savings

TOTAL
MEDICAL

− $248

Cost Detail
Estimated per member per month impact

+ $23

All Long-Term
Care Costs

Nursing Home

− $18

Inpatient
Hospital
Admission

− $318

DSHS | Research and Data Analysis

WASHINGTON STATE DEPARTMENT OF SOCIAL AND HEALTH SERVICES

6

Predictive Modeling and Clinical Decision Support
Achieving Profound Savings Supporting Direct Client Care

Washington State's **PRISM predictive modeling and clinical decision support application** supports a Medicare-Medicaid Dual Eligible Demonstration that produced $**21.6 million in Medicare savings** in its first year

Lessons Learned: Keys to Washington State's Success

▸ **Senior agency leadership recognizing potential for integrated data analytics to support improved service delivery**

▸ **Maintaining connection between analytic staff and program operations**

▸ **Supporting service delivery systems rather than "academic" interests**

▸ **Maintaining a commitment to analytical integrity to build trust with other agencies, the Legislature, and external stakeholders**

▸ **Commitment to engage data owners in timely review of sensitive results before public release**

▸ **Initial development occurred within a single large umbrella agency**

▸ **Integration of new sources dependent on external partner agency interest**

Lessons Learned: Data Integration Challenges

▸ **Obtaining the necessary financial resources**

▸ **Establishing effective cross-agency governance structures**

▸ **Building and maintaining trust among data owners, including addressing privacy concerns**

▸ **Conscripting time from state agency subject matter experts**

▸ **Maintaining support of constantly evolving state agency leadership**

▸ **Maintaining an analytical data infrastructure in a constantly evolving policy, program and IT system environment**

▸ **Recruiting and retaining internal staff with analytical expertise, or finding external contractors with relevant subject matter expertise**

▸ **Data are plentiful – analytical skills informed by policy and program expertise are scarce**

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Questions?

https://www.dshs.wa.gov/sesa/rda/research-reports

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10

A Public Engagement Approach to Establishing Statewide Longitudinal Data Systems

Dr. Domenico "Mimmo" Parisi

Professor of Demography and Applied Statistics
Executive Director, National Strategic Planning and Analysis Research Center

nsparc
NATIONAL STRATEGIC ▮ PLANNING & ANALYSIS RESEARCH CENTER

What is a Statewide Longitudinal Data System (SLDS)?

An SLDS allows for the alignment of administrative data from multiple sources to examine and improve education, workforce, and economic outcomes along the entire education and workforce lifecycle of individuals and programs.

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NATIONAL STRATEGIC ▮ PLANNING & ANALYSIS RESEARCH CENTER

Data Lifecycle

Providers

Management
- Acquisition
- Curation
- Alignment

Users

Data-centric Approach

- "Begins with data…ends with data"

- Focused on technical issues - acquisition, curation, and alignment of data.

The Public Engagement Approach

- Begins with a common understanding of the **value of data**

- Focus on creating a **common understanding of the value of data** between data providers and data users.

Providers

Users

Public Engagement: Data Providers

Providers

Who are the data providers?

- Education: Pre-K, K12, Career Technical, and Higher Education

- Workforce: ES/UI, TANF/SNAP, Ex-Offender programs, Internships, Wage Records

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Public Engagement: Data Access

Who will use the data?

- Researchers and Scientists
- Policymakers
- Administrators
- The Public
- Economic Developers

Users

Public Engagement: Data Management

Management
- Acquisition
- Curation
- Alignment

- **Data Governance**—ensuring privacy and confidentiality and establishing common rules guided by a common understanding of the value of data.

- **Data Security and Expertise**—establishing a center of excellence for storage, processing, and analysis.

Capacity

lifetracks.ms.gov

U.S. Department of Education created multi-year SLDS grants that were designed to support design, development, implementation, and expansion of longitudinal data systems at the state level.

Sustainability

- Show Value - demonstrate that people are using the system to:
  - Improve education and workforce outcomes
  - Help avoid costs in the implementation of education and workforce programs

- Leverage - A data tool becomes an economic development tool (e.g., Workforce on Demand powered by Mississippi Works)

- Legislative and Executive Support

Questions

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The National Vital Statistics System

Charles J. Rothwell

Director, National Center for Health Statistics

Presentation for the
Commission on Evidence Based Policy Making
January 13, 2017

National Center for Health Statistics

Purpose and Use for Vital Records

- **Civil Registration: permanent legal record of vital events registered and processed by vital records offices**

- **National Security: protect against fraudulent use; used for proof of citizenship; birth certificates used by SSA to generate Social Security numbers, by State for passports**

- **Public Health: surveillance, monitoring trends, identifying emerging issues**

Background

- 1893 International List for Causes of Death

- 1907 Model Legislation for states on vital registration

- 1933 NAPHSIS established - all states and DC adopted laws consistent with Model legislation

- 1967 and beyond: NCHS developed automated coding system and software

- Today: Electronic registration of vital events

Registration of Vital Events

- Registration of births and deaths is *not* a Federal activity – the legal authority resides with the states and jurisdictions

- The US has 57 independent registration areas that provide the permanent legal record for births and deaths:
  - 50 States
  - 5 U.S. Territories
  - New York City
  - Washington, DC

Federal Role in Vital Statistics

- **Public Health Service Act, Section 306(h)(1):**

  - **NCHS mandated to collect data annually *from the records of births and deaths in registration areas***

  - **Secretary of HHS shall encourage the collection of detailed data on ethnic and racial populations**

  - **States and registration areas shall be paid by the Secretary the Federal share of its reasonable costs**

Vital Statistics Cooperative Program

- **Oldest Federal – State data sharing partnership**

- **NCHS contracts with 57 jurisdictions**

- **Collaboration results in the use of standard certificates, classifications (ICD), coding rules, and reporting elements**

- **Records are sent to NCHS:**

  - **NCHS provides quality review and mortality coding**

  - **NCHS returns electronically coded records in 1 day, returns manually coded records in 10 days**

Robust Collaboration

- NCHS provides funding, training, technical assistance

- Records sent to NCHS must meet certain requirements for coding rules and coding structures:

  - NCHS provides quality review and mortality coding

  - NCHS returns electronically coded records in 1 day, returns manually coded records in 10 days

- Result: NCHS produces national statistics based on 6 – 7 million records of births and deaths each year and quarterly estimates on major outcomes

Timeliness

- Improved timeliness = increased value

- Substantial improvements in timeliness for:

  - Receipt of records by NCHS from jurisdictions
  - Return of records to jurisdictions from NCHS
  - Release of data by NCHS

- Timeliness of mortality data differs by cause of death – important for mortality surveillance

Mortality Records Received by NCHS within 10 Days of the Date of Death
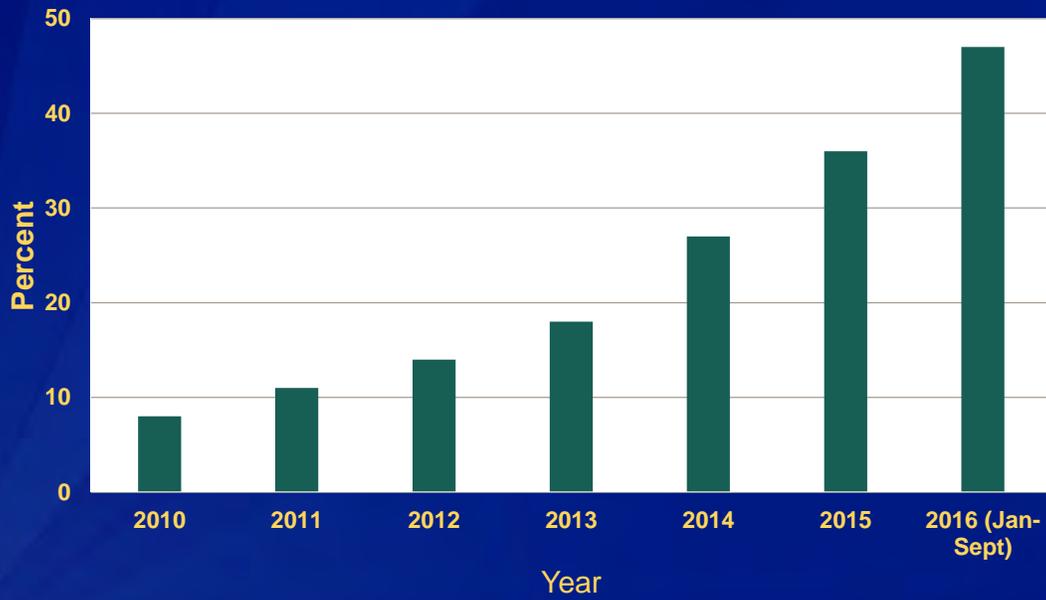
Access to Information for the Public and Researchers

Products and Dissemination

- **Data Briefs**

- **National Vital Statistics Reports**

- **Vital Statistics Rapid Release Program- Quarterly**
  - **Natality estimates for birth rates, delivery method, preterm, other Gestational age**
  - **Mortality estimates for 15 leading causes of death plus drug overdoses, falls (age 65+), HIV, homicide, and firearms**

NVSS Vital Statistics Rapid Release

Quarterly Provisional Estimates

Instructions

Select options for indicator and rate type. Once options are selected, click 'Generate Chart'.

Options

Indicator:
All Causes

Rate Type
- Crude
- Age-adjusted

Generate Chart >

Additional Resources

Crude and age-adjusted death rates for all causes: United States, 2014–Quarter 2, 2016

- For 2016, the crude death rate for all causes was 894.7 deaths per 100,000 population for the first quarter and 822.3 for the second quarter. The rate for the first quarter decreased from 930.3 in the first quarter of 2015, and the rates for the second quarter were similar in 2015 (823.5) and 2016. The age-adjusted death rate decreased from 2015 to 2016 for the first quarter (769.1 and 801.4, respectively) and for the second quarter (705.3 and 716.8, respectively).
- The crude death rate for all causes for the 12-month period ending with the second quarter of 2016 was 836.1 per 100,000 population, a decrease from 843.0 for the same period of 2015. The age-adjusted rate remained lower in 2016 than in 2015 for the comparable period (720.2 and 736.4, respectively).
- In 2015 (12-month period ending with the fourth quarter of 2015), the crude death rate for all causes was 844.0 per 100,000 population, an increase from 823.7 in 2014. The age-adjusted death rate remained higher in 2015 than in 2014 (733.1 and 724.6, respectively).

Crude death rates for all causes:
United States, Quarter 4, 2014–Quarter 2, 2016

- 3-month period
- 12 months ending with quarter

Access to Data

- **Interactive, web-based services**
  - **WONDER**
  - **WISQARS**

- **Full micro-data files**
  - **Public use**
  - **Restricted**

Release and Access Policy

National Center for Health Statistics

National Vital Statistics System

National Vital Statistics System

CDC > NCHS > National Vital Statistics System

NCHS Data Release and Access Policy for Micro-data and Compressed Vital Statistics Files

This document outlines NCHS/Division of Vital Statistics (DVS) policy on the release of and access to vital statistics micro-data for births, deaths, fetal deaths, linked birth/infant death, and matched multiple births. Given changes in state laws and policies on confidentiality with respect to the re-release of vital registration data, NCHS has revised its micro-data release and access policy to comply with state requirements effective with the 2005 data year.* The DVS revised policy as outlined here is consistent with CDC and NCHS goals to make data available as widely as possible while protecting respondent confidentiality, assuring data quality, and conforming to state laws and regulations on re-release of vital statistics data.

Data available to the public:

A. Public-use micro-data file content:

The release of public-use data generally coincides with the publication, or follows soon after, of DVS final annual reports on births, deaths, fetal deaths, and linked birth/infant death. DVS also publishes preliminary reports, but these are based on incomplete data, do not constitute a final data file, and are not released as micro-data. Final report publication dates vary from year to year following receipt and processing of complete data from the states and other registration areas.

Left sidebar navigation:
- National Vital Statistics System
- About NVSS
- What's New
- Publications and Information Products
- Training
- Birth Data +
- Mortality Data +
- Fetal Death Data
- Linked Birth and Infant Death Data
- Marriages and Divorces +
- National Maternal and Infant Health Survey
- National Mortality Followback Survey +

Restricted Data

Requests must be reviewed by NAPHSIS and NCHS

NAPHSIS Review:

- Researchers may request customized micro-data files containing geographic data on States and counties

- Some states have their own laws, regulations or policies restricting access and prohibiting release of certain items

- NAPHSIS must review and approval all requests for custom micro-data prior to review by NCHS

Restricted Data continued

NCHS Review:

Federal Privacy and Confidentiality Requirements:

- Public Health Service Act § 308(d) *Information must be used for the purpose for which it was supplied, and no identifiable information may be published or released without consent*

- Following approval from NAPHSIS and NCHS, researchers must sign a Data Use Agreement on terms and use

- Data for approved projects will be provided at no cost

National Death Index

- Centralized database of death record information

- Assists investigators in the identification of study participants who have died

- Records are available from 1979 – 2015

- Available to investigators solely for statistical purposes in medical and health research

Contact Information:

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Director, National Center for Health Statistics

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INTRODUCTION

- Opening access to confidential government microdata for research in France : a 2 steps process
  - Access to official confidential microdata (census and surveys) 2008
  - Access to administrative data in France since 2014-2016

- Administrative data under a rather dispatched organisation and legal frameworks

- However organization of access to administrative data has benefited from the centralized process and infrastructure set up for access to official microdata
  - The approval process: *Comité du secret statistique*
  - The remote access infrastructure: *CASD*

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KEY POINTS IN THE LEGAL FRAMEWORKS FOR ADMINISTRATIVE DATA

- Under various legal frameworks
- Started by changing specific legal frameworks one by one
  - 2014 Tax data
  - 2015 Medico-administrative data

- Extension to all administrative data - 2016
  - By clearing of the responsibility of producers regarding professional secrecy
    - NB Central Bank data depend on the European framework: Banque de France opened an on-site access
- Last step: Facilitate linkage on the basis of the NIR (National Identity Number) for statistical and research purpose - 2016

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The overall process

- A researcher can ask any data under the legal perimeter

- The researcher contacts the producer to check data fit the research project

- Approval process via independent authorities
    - + Agreement of the producer (see above)

- Remote access process: CASD acts as third party between the producers and the users

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Governance (1): The approval process

- *Comité du secret statistique*
    - An independent authority chaired by a lawyer
    - Representatives of the Parliament
    - Representatives of the Unions
    - Representatives of the producers
    - Representatives of *CNIL* (National Authority in charge of privacy protection) and of Archives de France (National Archives)
    - 2 Representatives of researchers (proposed by the ministry of research in consultation with the Data Archives infrastructure)

- Provides an advice based on the research project and public interest
    - + Agreement of the producer
    - + Formal approval from the Authority in charge of privacy protections if personal data (CNIL)
    - + Formal approval from the National Archives

- Does not require accreditation of institutions

- Open to researchers from European Union

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Governance (2): The secure access CASD

- A department of GENES, an independent institution of high education
  - Representatives of Ministry of research and Ministry of finances on board

- CASD governing board includes 5 Founding Research institutions + Data archive infrastructure + INSEE

- A Scientific Advisory Board
  - 15 members from France and other countries
  - Researchers from various disciplines, IT and methodologists + a representative of INSEE, Eurostat invited

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The access process: CASD Role

- Acts as third party for secure access between data producers and researchers
- Equal access for all researchers (no specific access for the founding institutions)

  - Preparation and transfer of data with the producers
  - Metadata harmonised under DDI
  - Establish contracts with researchers (responsibility of the researcher)
  - Enrolment and training of researchers
  - Secure remote access to data
  - Outputs checked before export or automatic exports depending on agreements with data holders
  - Can act as third party for data linkage

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CASD TECHNOLOGICAL SOLUTION
A distributed architecture designed by GENES IT department

- **High security**
  - An integrated system
  - Physical and logical security including a biometric strong authentication
  - No possibility to download data

- **Usability for the researchers**
  - Remote access: researchers can work from their university with their SD-Box (+ access card +biometric control)
  - Researchers can see the data
  - A research environment for working and writing

- **Flexibility**
  - Easy to install and deploy in the pre-existing researchers' institutions environment: no compatibility issues, no test to run

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CASD : an integrated system

:

- A central IT infrastructure highly secure
- The SD-Box : the only way to access the central infrastructure. They are sent to users.

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La SD-Box.

10

The SD-Box®

The bubble: an hermetic infrastructure
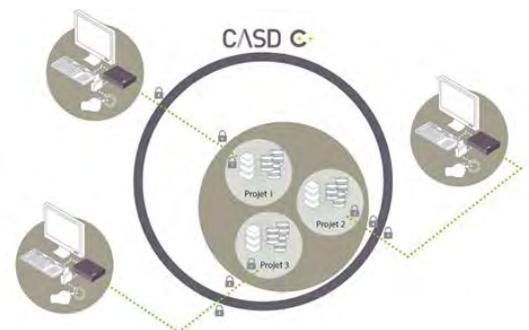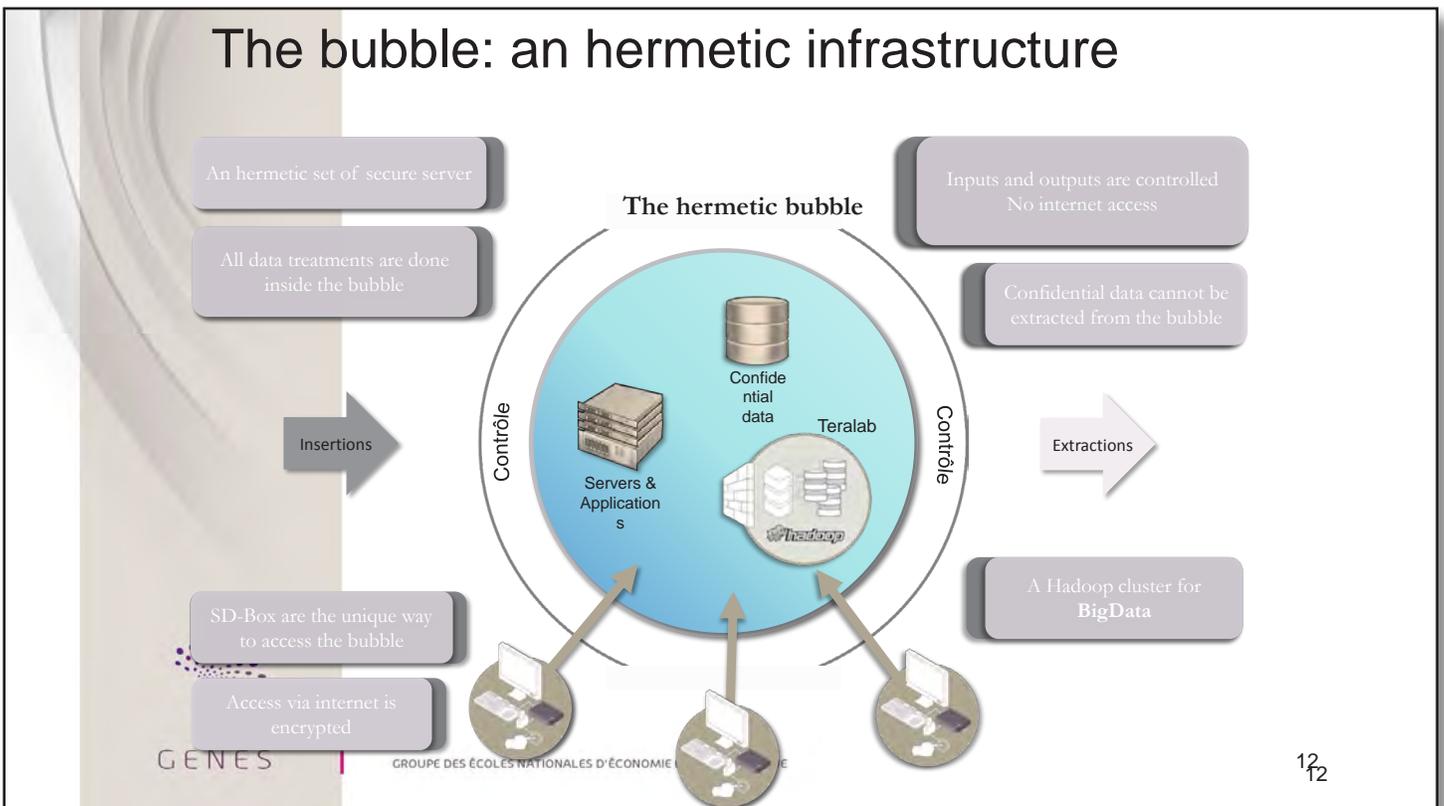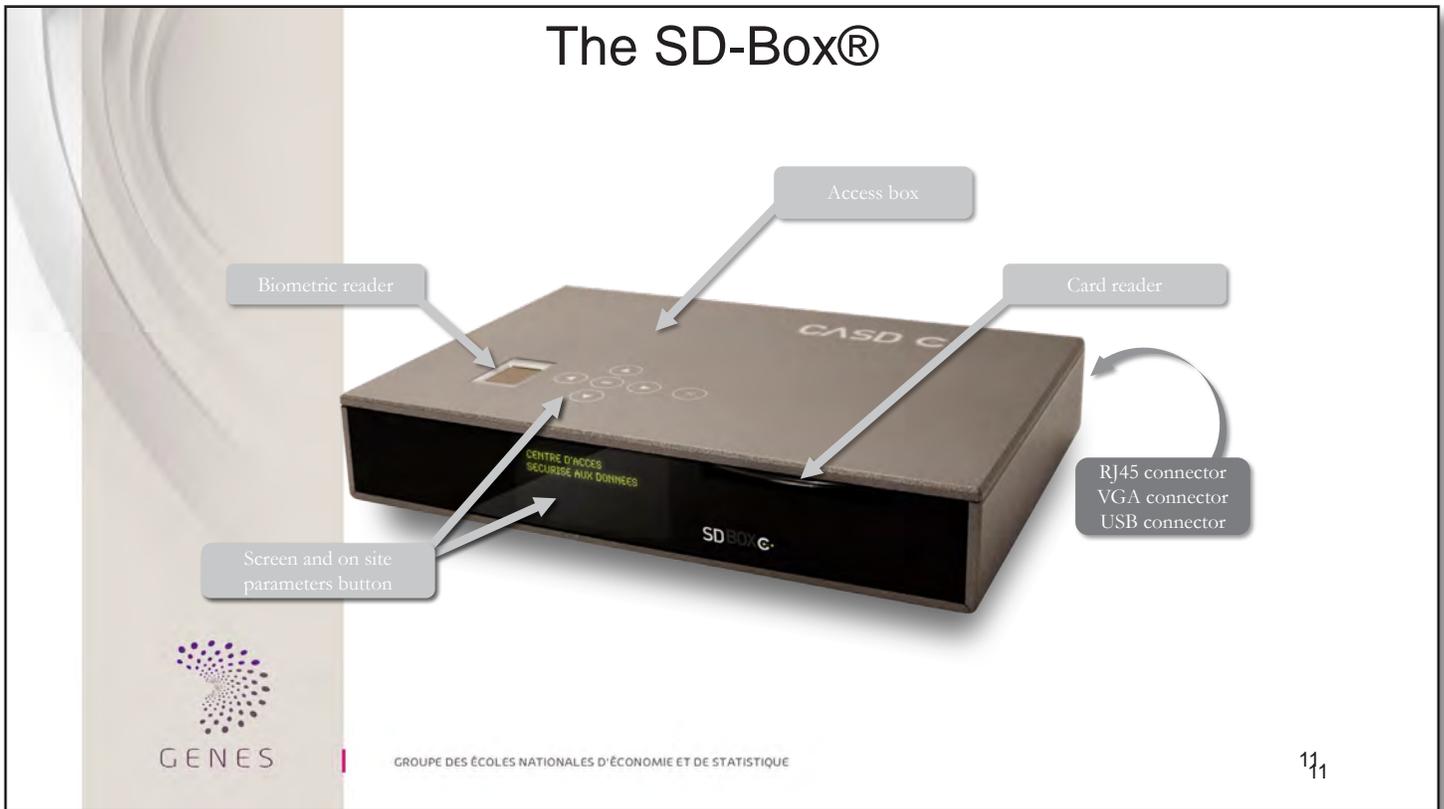
CONCLUSION

The technological solution:

- **From the researcher's perspective:** everything is at hand, data, a well-known environment with all software, storage, computing power, also designed for big data
- **From the security perspective:** everything happens at CASD in the bubble with no dependence of other systems that may compromise security, no possibility to download data
- **From a service perspective (installation, supervision, assistance)** SD-Box are identical, monitored, configured, updated remotely by CASD, easy to replace
- **From a cost perspective:** the solution integrates software and services. SD-Box can be shared by several teams

The overall unified system :

- **A central point for access with harmonised criteria for approval, same procedures for access and possibility to easily work with datasets from different administrations**

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Sommaire

THANKS !

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https://casd.eu

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14

The Danish Statistical Information System
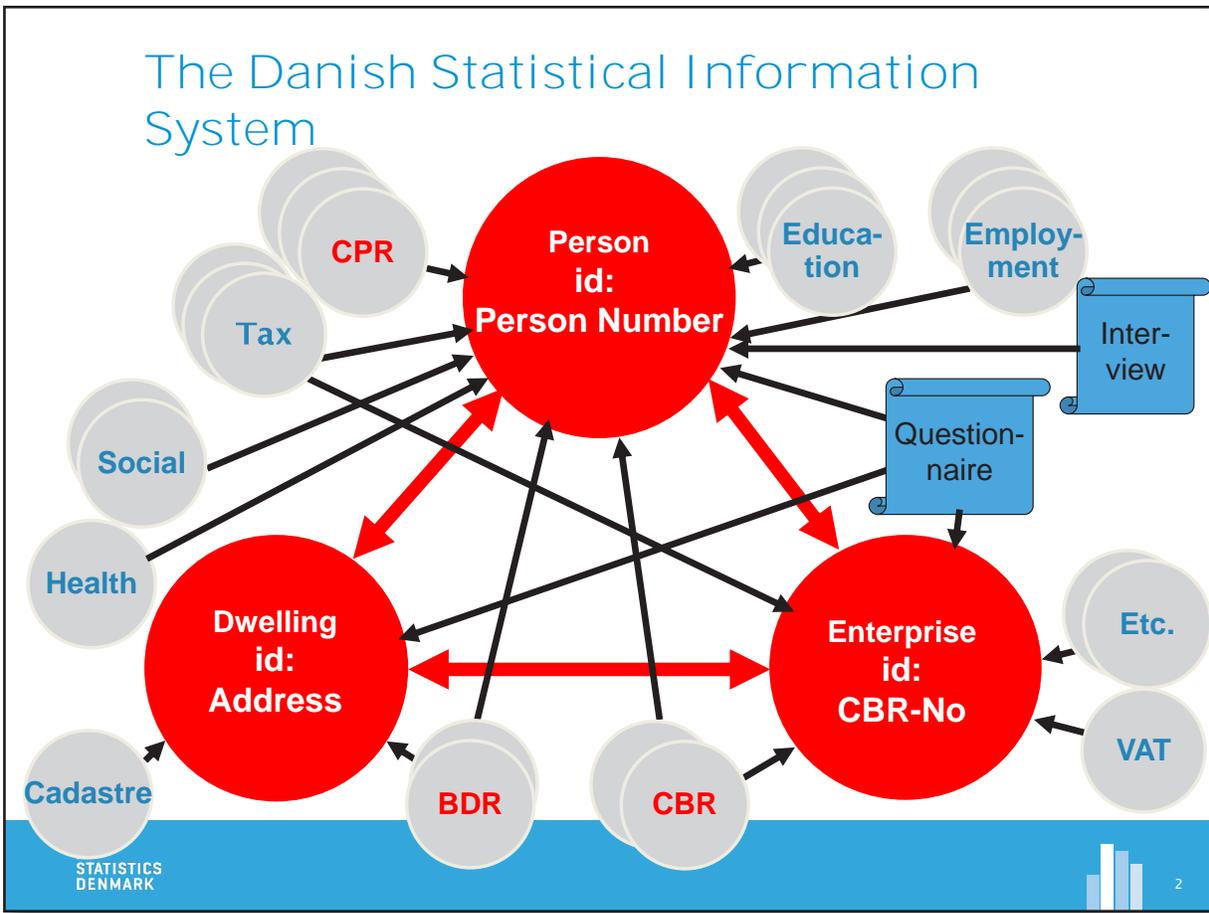
Demographic data

- Longitudinal demographic information from 1980 onwards
  - E.g. immigration and emigration
  - Marriages and divorces
  - Births and deaths (causes of death)
  - Family formation
  - References between parents and children

STATISTICS
DENMARK

3

Health data

- National Register of Patients
  - Hospitalizations and diagnoses etc. from 1977 onwards

- Register of Medicinal Product Statistics
  - Total population data from 1995 – prescripted medicines

- Health insurance
  - Contacts covered by the public health insurance e.g. visits to a doctor
  - 1992-

STATISTICS
DENMARK

4

Income, education etc.

- Income statistics, income of the year 1980-
  - Now E-income, monthly employment figures

- Cohesive social statistics / Public beneficiaries
  - Recipients of transfer benefits
  - 1984 -

  - Highest completed level of education (status 1 January) 1981-
  - Integrated Student Register (longitudinal data)
    - 1973-
    - detailed educational training programs incl. interrupted training programs

STATISTICS DENMARK

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Labourmarked, business register etc

- IDA – Integrated Database for Labour Market Research
  - IDA linkages (persons - workplaces – employees)
  - 1981-

- Central Business Register (enterprises and accounts)

- Central Register of Buildings and Dwellings (BBR)
  - and real estate registers (owners of real estate)
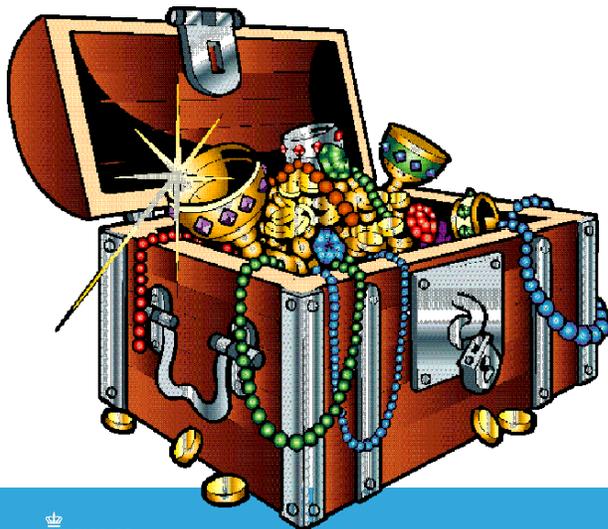
STATISTICS DENMARK

6
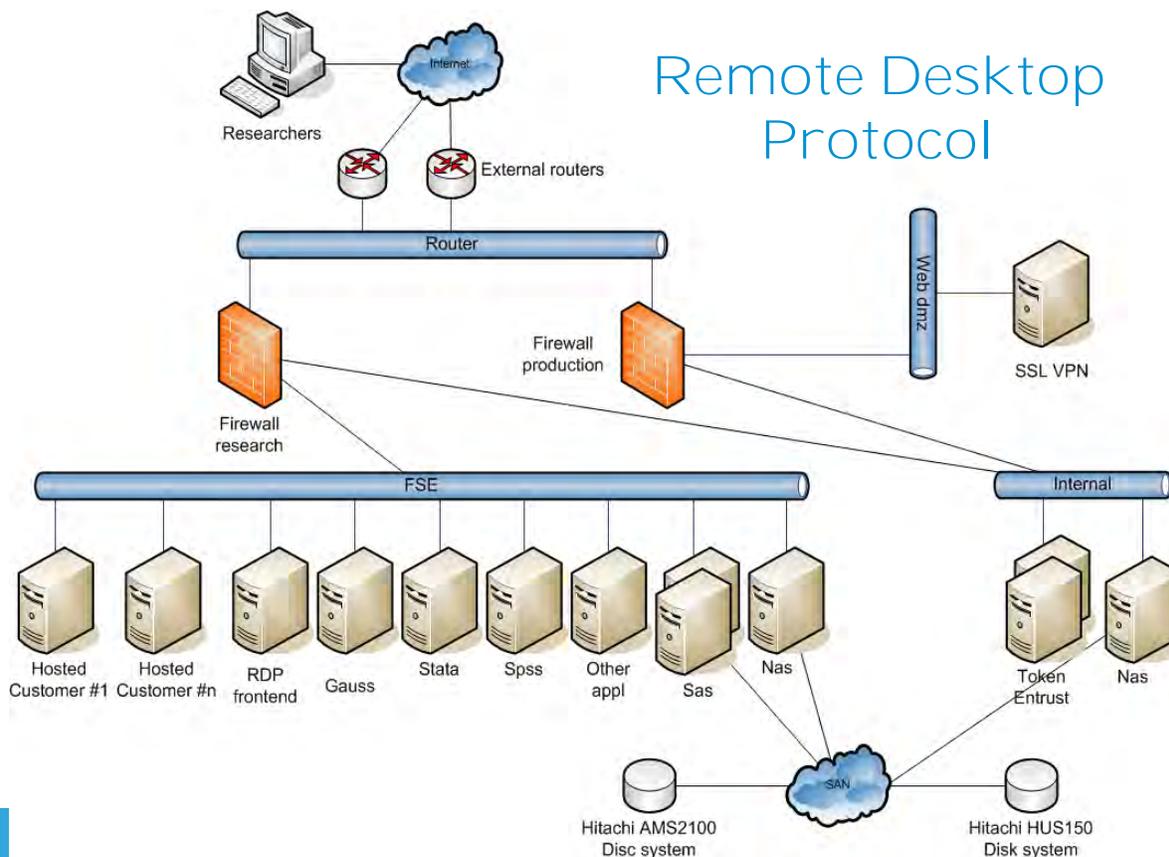
Autorization:
Who can access microdata?

- Only researchers or analysts from specially authorized institutions (stable institutions with a responsible manager and with a number of researchers/analysts)

- Private companies can be authorized and have access if they have a stable research environment

STATISTICS DENMARK

9

Limitations to Data access

- Only access to data according to a "need to know" principle

- Statistics Denmark may reduce the data applied for (samples and grouping)

STATISTICS DENMARK

10

Data Security

Users
- The head of the research institute signs Authorization: Responsibility & supervision
- The researcher signs declaration to follow rules for access to micro data
- Possible to close an authorization if rules for access to micro data is not followed

Data
- All data will be **de-identified**
- Micro data stays at Statistics Denmark on special dedicated servers
- The research server are separated from the statistical production at Statistics Denmark

STATISTICS DENMARK

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Data Security

Output

- Output with statistical results is forwarded only by e-mail

- Researchers are not allowed to print individual records and cannot download data or results

- Mail is logged

- Output is randomly checked by SD

STATISTICS DENMARK

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DATA FLOW: PROCESS FOR REGISTERING AND REPORTING VITALS

The process for registering vital events, reporting data to NCHS, and releasing vital statistics is complex, with many steps performed by many actors from start to finish. When an event occurs, data providers—typically hospitals for birth information and funeral homes, physicians, and coroners for death information—submit birth and death data to the vital records jurisdictions so that the vital event can be reviewed, edited, processed and officially registered. The jurisdictions are then responsible for maintaining registries of such vital events and for issuing certified copies of birth and death records.

BIRTH

- Hospital reports to vital records office (VRO)

- VRO reviews data for quality
  - If needed, VRO follows up with hospital

- VRO where birth occurred shares birth record with mother's state of residence, if different

- VRO submits birth data to NCHS

- NCHS reviews data for quality
  - If needed, NCHS sends back to VRO
  - If needed, VRO follows up with hospital

- VRO conducts final year end edits and submits complete, final data to NCHS

- NCHS conducts final data quality review
  - If needed, NCHS sends back to VRO

- NCHS and vital records jurisdictions each release aggregate non-identifiable vital statistics data

There are many permutations of registering and reporting vitals; the process depends on where and how an event occurs, which determines who initiates the process. This flow chart is meant to depict the most typical scenarios for births and deaths.

DEATH

Depending upon the circumstances of the death - natural causes or questionable circumstances - the death certificate is initiated by:

- Funeral home to supply personal and demographic information

OR

- Medical official (e.g., certifying physician, coroner, or medical examiner) to supply the cause and manner of death and other medical information

- Funeral home completes death certificate with demographic information about the decedent and provides to VRO

- VRO reviews data for quality
  - If needed, VRO follows up with funeral home and/or medical official

- VRO shares death record with state of residence if person died out of state and with the state of birth so that state may mark the birth record "deceased"

- VRO submits data to NCHS

- NCHS reviews data for quality
  - If needed, NCHS sends back to the VRO
  - If needed, VRO follows up with funeral home and/or medical official

- VRO conducts final year end edits and submits complete, final data to NCHS

- NCHS conducts final data quality review
  - If needed, NCHS sends back to VRO

- NCHS and vital records jurisdictions each release aggregate non-identifiable vital statistics data

Economics of Evidence:
Public Sector Problems and Solutions

Daniel L. Goroff
Vice President and Program Director, Alfred P. Sloan Foundation

Informed by grantees such as: Cynthia Dwork, Aaron Roth, Adam Smith, John Abowd, Jerry Reiter, Sahlil Vadhan, Micah Altman, Gary King, Alessandro Acquisti, and at ICPSR, IQSS, BITSS, COS, ADRN…

Opinions are not necessarily theirs or those of the Sloan Foundation.

What Problem are We Trying to Solve?

1. Public Goods Problem for Open Data

    Due to free riding and financial challenges.

2. Externality/Spillover Problem for Evidence

    Due to inevitable validity and privacy leakage.

3. Transaction Costs Problem for Researchers

    Due to lack of trusted intermediary platforms.

Data & the "Public Goods" Problem

- Open data is a "public good," technically speaking.

- I.e., a commodity that's non-rival & non-excludable.

- E.g., lighthouses, parks, discoveries, defense, etc.

- Problem is to finance and sustain public goods.

- Solutions to free riding are taxes or philanthropy.

- Works for look-up data: SDSS, Wikipedia, GPS, etc.

Evidence & the "Externality" Problem

- Data is not a "public good" (excludable).

- Evidence for policy isn't either (actually rival).
  Need models, hypotheses, and causal inference.

- "Externality" or "spillover" is when you affect others
  without their choice, e.g., air or water pollution.

- Every query answered leaks *privacy* and *validity*!

- Solution: regulate bad behavior, facilitate good.

Accuracy & the Externality Problem
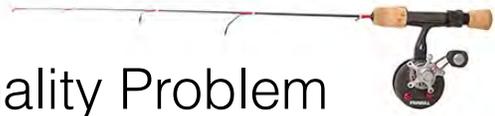
- Validity of testing a hypothesis against a null H?
  Reject null if p= prob of data D given H is < .05.

- Say another project tests D against another null H'.
  But should publish only if prob of D given H *or* H'<.05.

- Or try 100 tests. Noise should make 5 look significant.
  If put other 95 away, literature will differ from evidence.
  Called *p-hacking*, *hypothesis fishing*, or *data mining*.

- Solutions: Limit access. Or pre-register hypotheses.
  Or use some data to explore, set-asides for testing.
  Or control validity-leakage rate using DP methods…

Facts about Privacy [from DR14]

- Database Reconstruction Theorem: Too many
  statistics answered too accurately from a confidential
  database will expose the entire database for sure.

- Data cannot be fully anonymized & remain useful.

- Re-identifying anonymized data is not the only risk.

- Queries over large sets are not protective.

- Query auditing is problematic & provably impractical.

- Neither summary statistics nor ordinary facts are safe.

Privacy Solutions [DMNS 06]

- Idea: allow researchers to ask certain questions about a dataset D to a *mechanism* M that adds noise to the true answer, then gives an approximate answer M(D).

- Definitions: Let $\varepsilon > 0$ and let U be a database I cannot see. It has a row for each individual's information. Call a pair of datasets D and D' *neighbors* if they differ in at most one row. Before learning M(U), I have prior beliefs about the odds that U=D vs. U=D'. We say M satisfies ε-*differential privacy* if learning M(U) cannot change those odds by more than a factor of $exp(\varepsilon)$.

Differential Privacy Properties
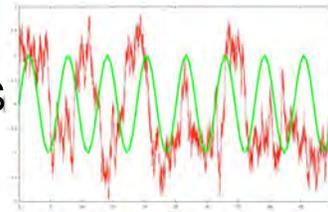
- Note: Because $exp(\varepsilon) \sim 1 + \varepsilon$ for small ε, this means M(U) tells you almost nothing new about U=D vs D'.

- DP Theorem: There exist useful M that satisfy ε-DP. E.g., given a standard statistical question about U, compute the answer then add noise of "size" ε.

- Participation: Anything learned from M(U) or after is essentially the same whether or not your info is in U.

- Composition: Doing M1 then M2 is $(\varepsilon 1 + \varepsilon 2)$-DP.

Privacy & the Externality Problem

- Only shows how to regulate the leakage of privacy. Still can't answer too many questions, or researchers could average out the noise. Need a *privacy budget*.

- Small ε means more privacy. But requires more noise. So can ask more questions, but get less accuracy.

- Synthetic Dataset Theorem: Given D, you can run an M that approximately answers certain statistical questions in such a way that researchers can hardly ever tell M(D) from M(D'), even after many queries.

Produce Evidence but Limit Externalities?

- Let data scientists explore away at synthetic data.

- Given a hypothesis so generated, access data to test it using DP to control privacy *and* validity leaks.

- Yes, Differentially Private methods also control overfitting and false positive rates by ignoring D vs D'.

- Thus distinguish between *exploratory* work on data vs. *confirmatory* research that can produce evidence.

- Who will help facilitate all this for researchers?

High Transaction Costs for Researchers

- Gov't can try to reduce such costs: currency, FOIA.

- Administrative data use is now *ad hoc*: Hard to obtain, prepare, protect, supply, sustain, study, link.

- Need trusted intermediaries with sector expertise. Call these *Administrative Data Research Facilities*.

- For gov't *or* proprietary data, e.g., IRIS, Kilts, AISP, CDRC. ADRF's may also help with federal statistics.

- Make a network, call it the ADRN, to share standards and best practices for producing reliable evidence.

Basic References

- Dinur and Nissim (2003) [link]

- Dwork, McSherry, Nissim, and Smith (2006) [link]

- Machanavajjhala, Kifer, Abowd, Gehrke, and Vilhuber (2008) [link]

- Dwork and Roth (2014) [link]

- Dwork, Feldman, Hardt, Petassi, Reingold, and Roth (2015) [link]

- Goroff (2015) [link]

6th Meeting of the Commission on Evidence-Based Policymaking

Learning Statistics Secure from Administrative to DNA Records:
Are We There Yet?

Bradley Malin, Ph.D.

Professor of Biomedical Informatics, Biostatistics, & Computer Science

Director, Health Data Science Center

Vanderbilt University

February 24, 2017

What are We Talking About?

- Getting *answers* out of data…

  … without revealing individual records

- Not a new concept (remember the '70s?)!

- But now the computational machinery may be powerful enough for prime time
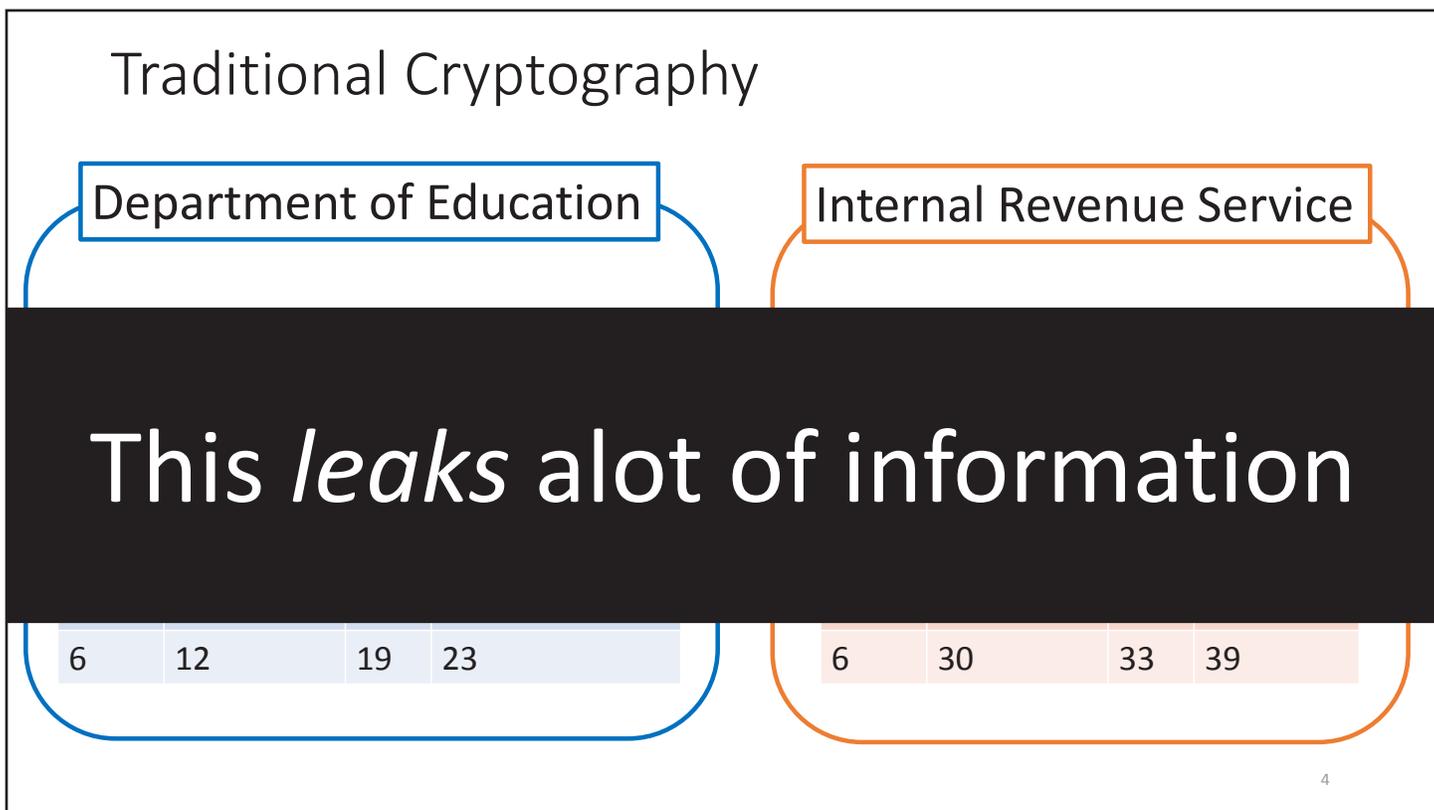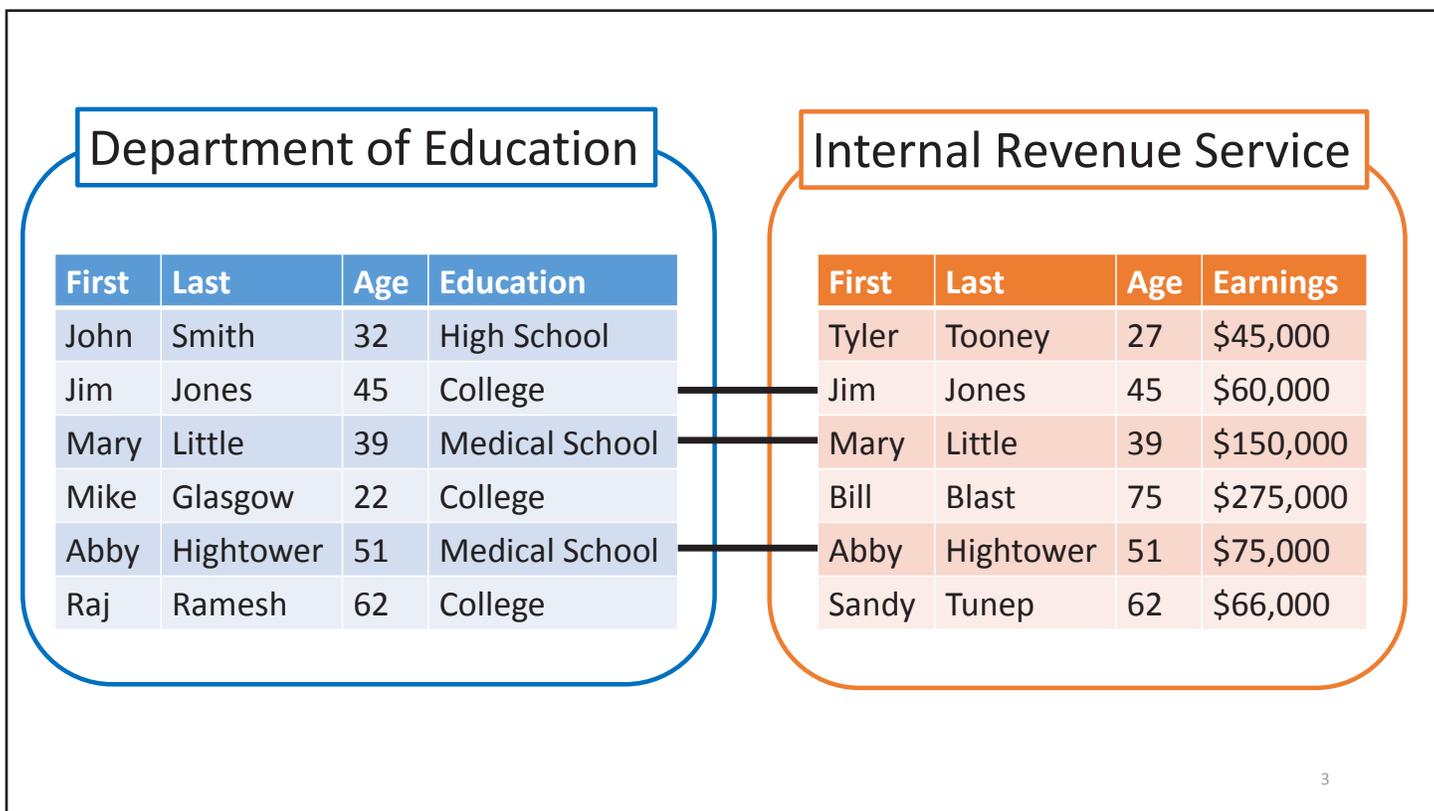
2

Crypto Advances: Secret Sharing

- Split… then combine

14

Site A: 10

-6   2

Site C: 7   Site B: 5

5

Crypto Advances: Secret Sharing

- Split… then combine

22!

Site A: 10

14, 14, 7
-6, -12, 10
2, 3, -10

Site C: 7   Site B: 5
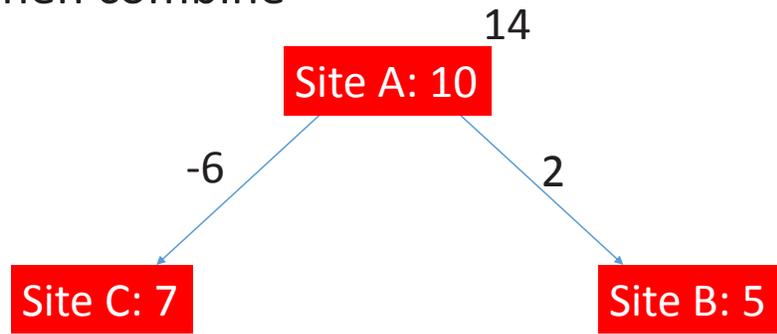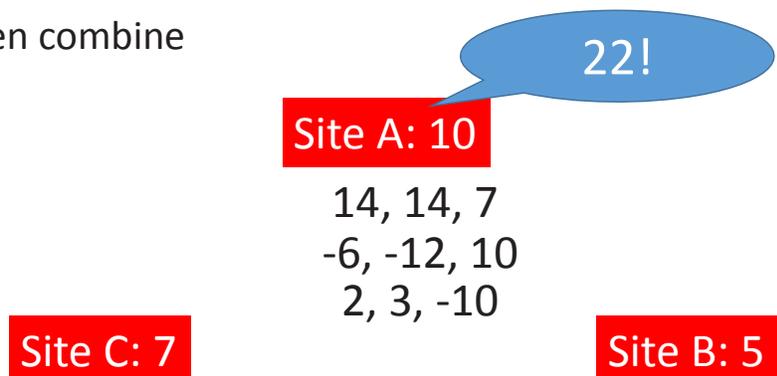
- In practice, this is done through higher order functions
- And once you can count – you can create complex statistical models

6

Real World Example: Cybernetica

- Statisticians from the Estonian Center of Applied Research
- Sharemind System
- Linked:
  - Individual tax payments from Estonian Tax and Customs Board (10 million)
  - Higher education events from Ministry of Education and Research (500 thousand)
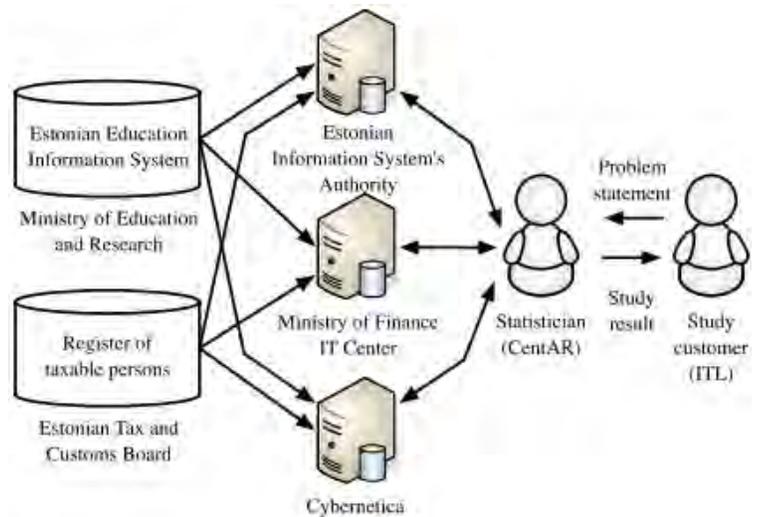
D. Bogdonov, et al. Students and taxes: a privacy-preserving social study using secure computation. Proceedings of the Privacy Enhancing Technologies Symposium. 2016.

7

Real World Example: Cybernetica (Caveat)

Process	Time (testing facility)	Time (in the wild)
Aggregation of education data	30 minutes	2 hours
Aggregation of tax data (monthly income)	18 hours	221 hours
Aggregation of tax data (yearly income)	2 hours	15 hours
Data join	30 minutes	4 hours
Analysis of data	29 hours	141 hours
Total time	**60 hours**	**384 hours**

D. Bogdonov, et al. Students and taxes: a privacy-preserving social study using secure computation. Proceedings of the Privacy Enhancing Technologies Symposium. 2016.

8

What Happens When You Can't Find Trusted Servers?

9

Traditional Cryptography

Secret Key

Hello, my name is…

Encryption Function

Asd;;io1329

Plaintext
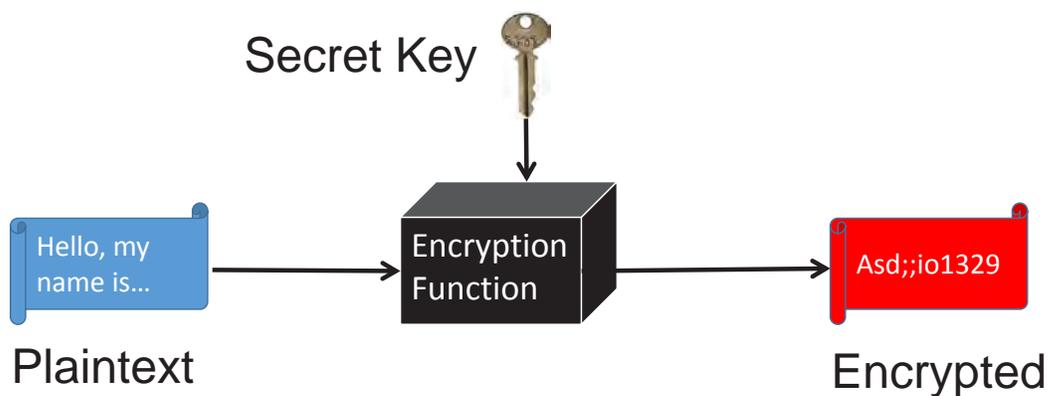
Encrypted

10

Crypto Advance - Circuit Evaluation:
Am I Older than You?

Me 57

You 23

Yes!
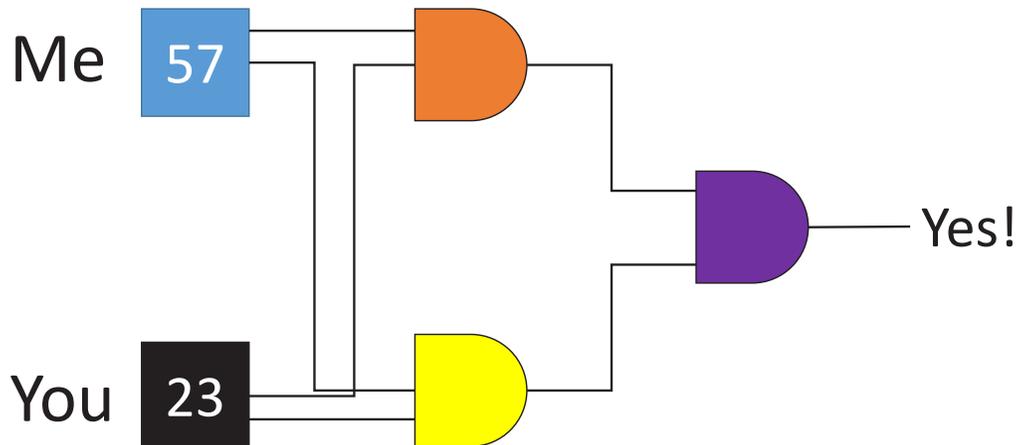
11

"Garbled" Circuit Evaluation

❶ Encrypted input

❷ Process encrypted data

❸ Extend circuit and carefully randomize order

12

"Garbled" Circuit Evaluation

The circuits can get big…

🚫Process encrypted data

The circuits can get slow.

13

Crypto Advances: Homomorphisms

• Long word, simple idea

$$\text{Encrypt}(X + Y) = \text{Encrypt}(X) + \text{Encrypt}(Y)$$

$$\text{Decrypt}(\text{Encrypt}(X + Y) = X + Y$$

• Can perform arbitrary mathematical computations!
• Major recent advances in academia and industry.

14

Application in Health Data Mining

- EPFL & Sophia Genetics

- Integration of homomorphic crypto into popular health database exploration software (i2b2)

- Issue queries like "how many patients have congestive heart failure and genetic variant x?"
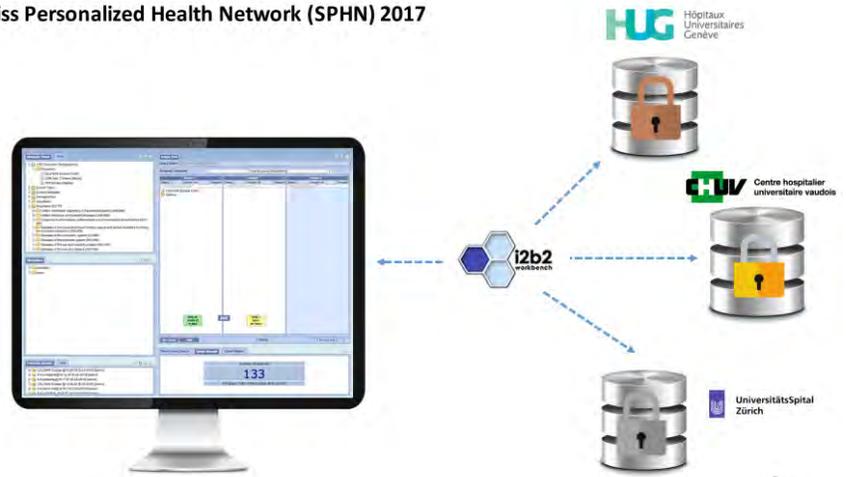
J.L. Raisaro, et al. Privacy-preserving explocation of genetic cohorts with i2b2 at Lausanne University Hospital. 3rd International Workshop on Genome Privacy & Security. 2016.

15

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J.L. Raisaro, et al. Privacy-preserving explocation of genetic cohorts with i2b2 at Lausanne University Hospital. 3rd International Workshop on Genome Privacy & Security. 2016.

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Real Working Software

- Time to compute is quick – seconds (or less)!

- I encourage you to watch Kristen Lauter's talk from the 2016 Genomics and Patient Privacy Conference

https://www.youtube.com/watch?v=vUtyuw7YLVM

The following video is presentation from Kristin Lauter, PhD, Principal Researcher and Research Manager for the Cryptography group at Microsoft Research. She presents a demonstration of privacy preserving technologies for genomic data sharing.

Kristin's group has won the iDASH 2016 competition in Track 3, Testing for Genetic Diseases on Encrypted Genomes (secure outsourcing). This is to calculate the

Where are We?

- The basic math behind secure computation is there.

- The software is there … for special circumstances.

- The software is not there… for arbitrary on the fly computations*

*It is for secret sharing, but not for homomorphic computation

19

What are the Challenges?

- Secure computation is NOT a panacea

- Computation can be secured, but the answers can still leak information
  - Example: Queries that reveal answers with very small counts

- There will always be a need for good key management, authentication, and (to a certain extent) trust – both in the system and the data

20

One More Thing – Secure Hardware

- Multiparty crypto may not be necessary in the future.

- Tamper resistant hardware may provide an opportunity for performing statistical analysis on plaintext.

- Hardware obscures individuals from viewing what's taking place.

- Example: our work on the IBM Secure co-processor in 2012*

*Canim M, Kantarcioglu K, Malin B. Secure management of biomedical data with cryptographic hardware. IEEE Transactions on Information technology in biomedicine. 2012; 16(1): 166-175.

- More recently: UCSD's work on the Intel SGX system (secured RAM)**

**F. Chen, et al. PRINCESS: Privacy-protecting rare disease international collaboration via encryption through software guard extensions. Bioinformatics. 2017: in press

21

An Integrated System for Confidential Data Access

Jerry Reiter
Department of Statistical Science
Information Initiative at Duke
Duke University
jerry@stat.duke.edu

1

Acknowledgements

2

The vision we are working towards

- Integrated system for access to confidential data including

    - unrestricted access to **fully synthetic data**, coupled with

    - means for approved researchers to access confidential data via **remote access** solutions, glued together by

    - **verification servers** that allow users to assess quality of inferences from the synthetic data.

3

Synergies of integrated system

- Use synthetic data to develop code, explore data, determine right questions to ask
- User saves time and resources when synthetic data good enough for her purpose
- If not, user can apply for special access to data
- This user has not wasted time
    - Exploration with synthetic data results in more efficient use of the real data
    - Explorations done offline free resources (cycles and staff) for final analyses

4

Synthetic data: Where are we now?

- Available data products (released by Census Bureau)
  - Synthetic Longitudinal Business Database,
  - Synthetic Survey of Income and Program Participation
  - OnTheMap
- Off-the-shelf software to generate synthetic data?   Not yet.
- General plug-and-play routines?
  - *Model based synthesis* – yes, but hard to characterize disclosure risks beyond re-identification
  - *Formally private synthesis* – much theoretical development, but not much practical experience for complex datasets

5

Verification servers: Where are we now?

- Allowable verifications depend on user characteristics
- We have developed verification measures that satisfy **differential privacy**
  - Plots of residuals versus predicted values for regression
  - ROC curves in logistic regression
  - Statistical significance of regression coefficients
  - Tests that coefficients exceed user-defined thresholds
- R software package in development
- Open question: how to scale up while respecting privacy budgets

6

Illustrative application: The OPM Synthetic Data Project

- Created fully synthetic version of the OPM CPDF-EHRI status file
  - Longitudinal work histories of civil servants from 1988 to 2011
  - Simulate careers, demographics, grades and steps, salaries, ...
  - Only available to OPM and Duke IRB approved researchers at the moment

7

Illustrative application: Verification of regression

- Regress log salary on demographics, including gender and race
- Hypothetical results from the synthetic data (dummy numbers as we are vetting final analyses):
  - Median salaries for Asian men are about 1.5% lower than median salaries for white men, holding all else constant
  - Huge sample sizes, so statistically significant
- Is the result from the synthetic data believable?

8

Illustrative application: Verification of regression

- User defines a threshold that represents a result of practical significance
  - Test if true coefficient for Asian male $B < -.01$
- Verification software returns differentially private answer that reflects uncertainty due to noise
  - Goal: estimate the probability, $p = \Pr(B < -.01)$
  - Output: 95% credible interval for p
  - Examples:
    - interval for p is (.92, 1.0), conclude synthetic data result valid
    - interval for p is (.52, .64), don't trust synthetic data result

9

Confidentiality protection and physical safeguards

Lars Vilhuber

Cornell University
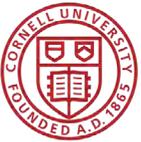
publication trade-offs
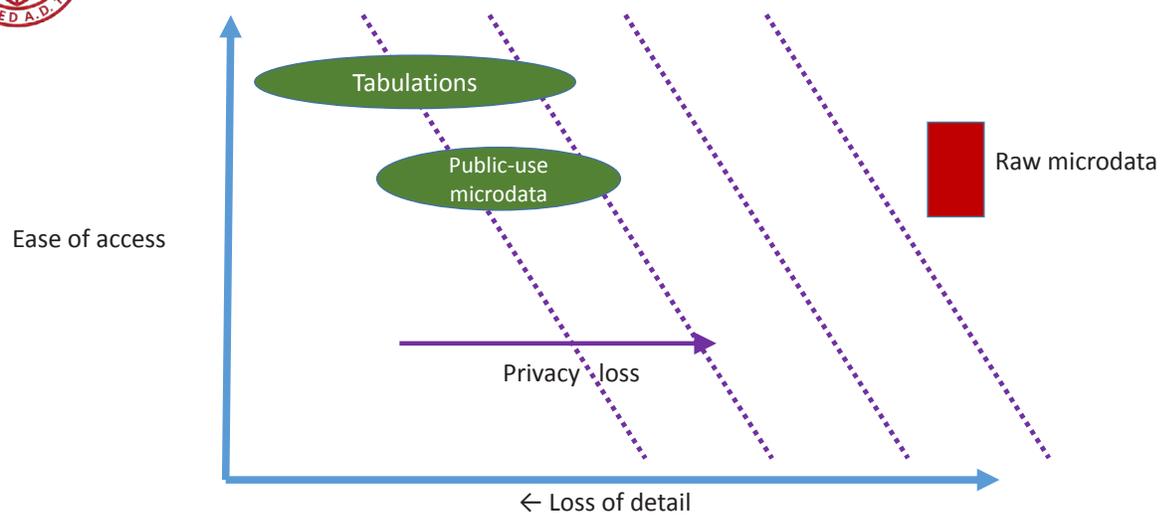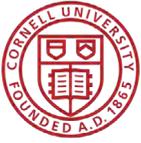
How to provide **easy and convenient** access to data with **more detail** than public-use microdata, **less privacy loss** than direct publication of raw data?
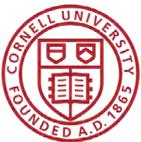
public use data

Data provider/
custodian

Data user/
researcher

confidential data
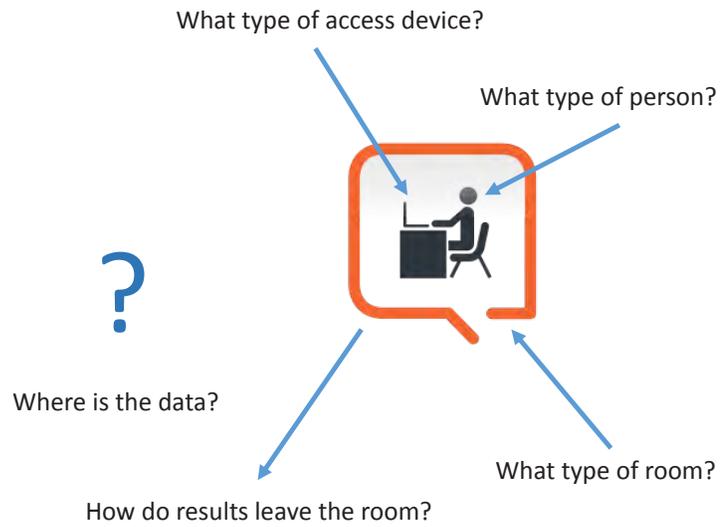
basic paradigm
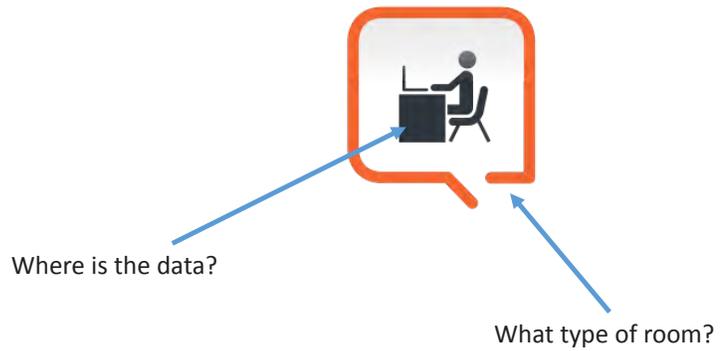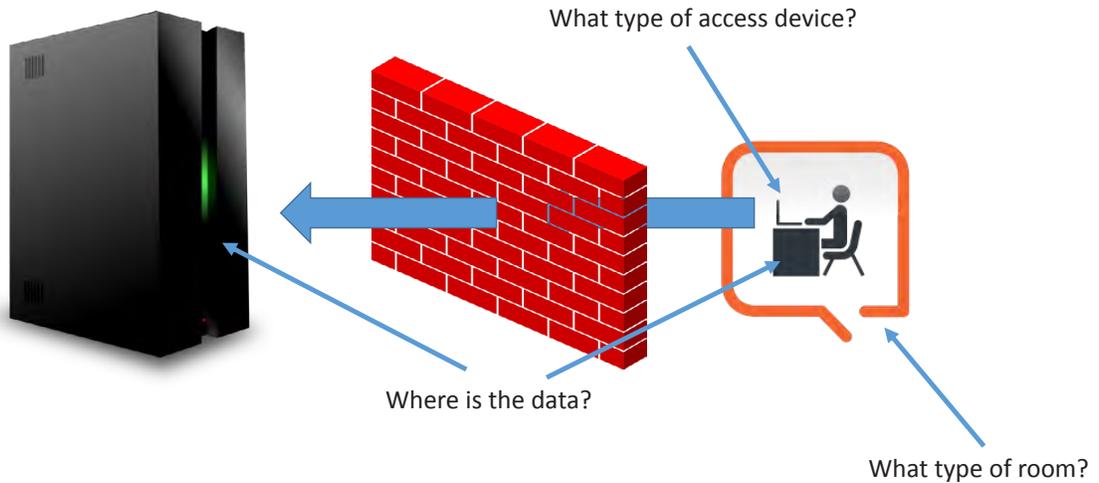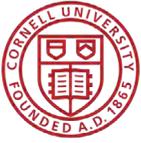
Examples in 1990s

Physical data enclaves

- BLS HQ
- BJS data access
- Department of Education data
- Census Bureau RDCs
- Canadian RDCs
- HRS restricted-access data
- and many more

Virtual data enclaves
(data remains in secure data center)

Examples in 2017

Physical data enclaves

- BLS HQ ?
- BJS data access
- Department of Education data
- ~~Census Bureau RDCs~~
- Canadian RDCs
- ~~HRS restricted-access data~~
- and many more

Virtual data enclaves
(data remains in secure data center)

- Census Bureau/Federal Statistical RDCs (since early 2000s)
- German IAB RDCs (since mid 2000s)
- French CASD (since late 2000s)
- Cornell's CRADC, NORC (early 2000s)
- HRS restricted access data (2015)
- and many many more

access methods: enclaves

Ease of use

Tabulations

Public-use microdata

Privacy loss

← Loss of detail

RDC

Physically secure room housing access devices and/or data

access methods: enclaves

Ease of use

Tabulations

Public-use microdata

Remote desktop

Thin client

Remote execution

RDC

← Loss of detail

Software on your own PC giving a view onto secure data environment

Secondary secure PC giving a view onto secure data environment

Submitting analysis programs by email or through website (possibly combined with synthetic microdata)

What type of room?

Access matrix for confidential data

	# access points	Control by data provider of:		Avail. analysis methods	Type disclosure avoidance
		Access computers	Access rooms		
FSRDC researcher	24 sites (~700 users)	Full	Full (badge access)	Some (choice of software)	Manual/ variety of rules
Census staff researcher	n.d.	None (VDI)	None (VDI)	Some (choice of software)	Manual/ self/ variety of rules
IAB: JoSuA researcher	414 users	None (Web application)	None (Web application)	Smaller (software, whitelist commands)	Manual/ variety of rules
CASD researcher	371 sites (1471 users)	Extra Full (custom-built hardware)	Some (university office, EU)	Some (choice of software)	Manual/ variety of rules €300/ pack of 10
Stat.Denmark (typical EU)	?	None (VDI) - Some (host institution)	None (VDI) - Some (host institution)	Some (choice of software)	Manual/ self/ variety of rules

How do results leave the room?

Typically, the **researcher** asks an **authorized agent** of the data provider to **review** the results for **risks of disclosure**, and he will then **send them** to the researcher
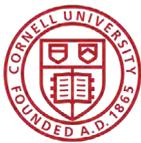
What if the "authorized agent" were the researcher?
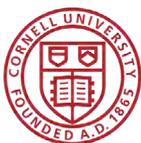
self-controlled release of results

- Researcher controls release of results
  - Prepares results herself
  - According to certain prescribed rules
  - Sends them through a system
  - Automatically receives results typically per email
- Used
  - Most often by contractually-controlled non-enclave data
  - Data in some university- or faculty-controlled enclaves (HRS, Dept. of Ed)
  - Danish researcher access system

access methods: enclaves

Ease of use

Tabulations

Public-use microdata

Self-controlled release

Remote desktop

Thin client

Remote execution

RDC

Raw microdata

← Loss of detail
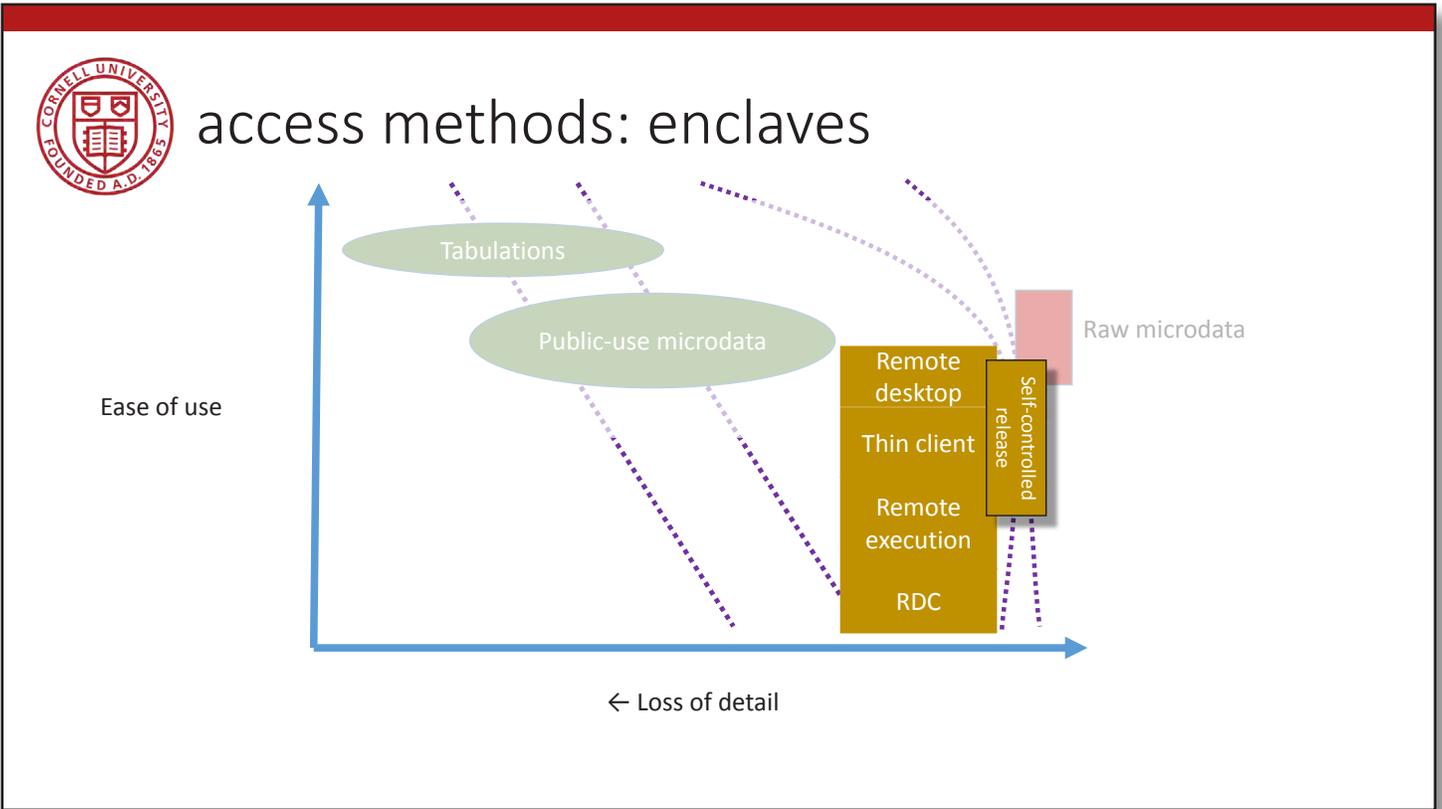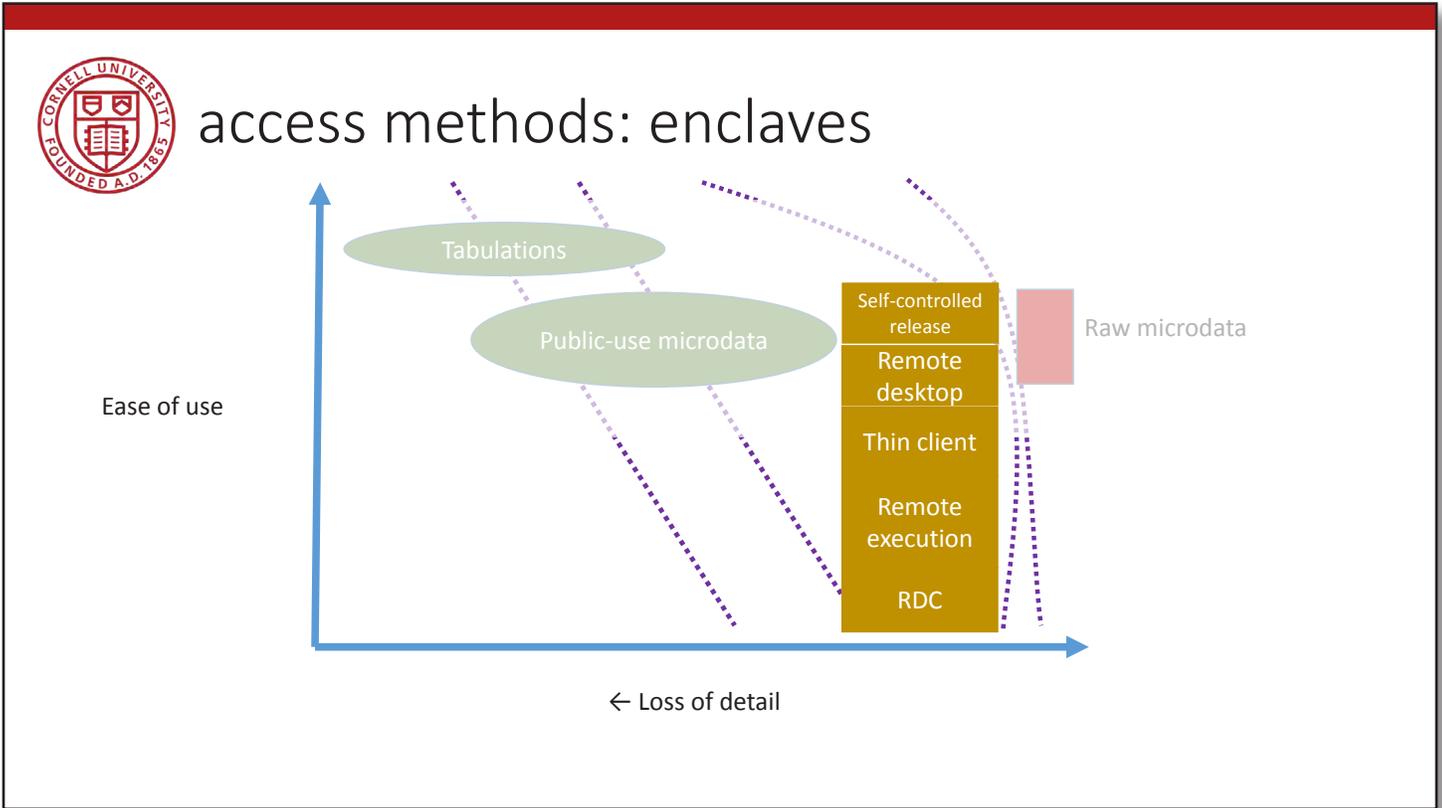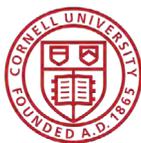
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penalties
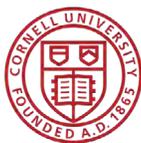
penalties

- FSRDC and federal employee:
  - federal prison sentence of up to **five (5)** years, a fine of up to **$250,000**, or both.
- France:
  - prison sentence of up to **one (1)** year, a fine of up to **€15,000**, or both.

penalties

- IAB:
  - Loss of data access for up to **two (2)** years for researcher and institution
  - Contractual penalty up to **€60,000** paid by the **institution**
- Denmark:
  - Researcher: Loss of data access **for life**, or up to **three (3)** years for "minor breaches"
  - **Institution**: Loss of access for a positive but limited (undefined) period
  - No financial or penal penalties

Of Note: the FSRDC contract explicitly excludes a responsibility of the university for the actions of its employees, though university remains bound by FWA/IRB.
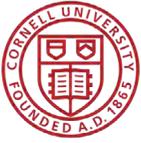
penalties

- Does **ease of application** matter (penal vs. contractual rules)?
- Is it conducive to more strongly **engage** the researcher's **employer** (typically but not exclusively a university)?

trust and access
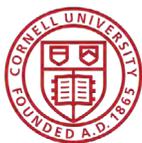
What type of person?
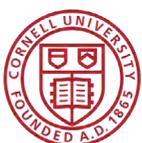
hypothesis: culture matters

- Researchers and agencies create the communities in which rules are applied and enforced
  - Training and "indoctrination":
    - Training of FSRDC researchers (short, decentralized) vs. FedStat employees (≥1 day on-site)
    - 1 full day on-site (in Paris) training for French researchers
  - Common forums:
    - Conferences: Canadian, US (FSRDC, NCHS) yearly RDC conferences
    - Discussion, local groups: users of FSRDC share a common physical space
- More or less tight binding of researchers into a community is important

virtual enclave = centralization

Concerns about centralized compute infrastructure

- Scope
  - FSRDC infrastructure dwarfed by other federal research investments (e.g. XSEDE) that cannot be utilized

Cluster	Cores	Tflops	As a multiple of FSRDC
FSRDC	240	4.36	1x
Wrangler (TACC)	2304	62	14x
Stampede (TACC)	102400	9600	2202x
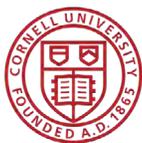
summary

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some concluding thoughts

- How to enable a scalable and secure system
  - Does it require changes in the legal framework?
  - How to build a culture of responsible and secure data access among researchers?
  - What kind of devices or access mechanisms do we want to enable?
  - Who gets to hold the data that researchers actually access?

thank you

lars.vilhuber@cornell.edu

Thanks

- Stefan Bender (formerly IAB and now Bundesbank, Germany)
- Jörg Heining (IAB, Germany)
- Roxanne Silberman (CASD, France)
- Kamel Gadouche (CASD, France)
- Jean Poirier (CIQSS, Canada)
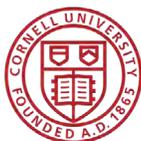
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- Allmendinger, Jutta and Kohlmann, Annette (2005) "Datenverfügbarkeit und Datenzugang am Forschungsdatenzentrum der Bundesagentur für Arbeit im Institut für Arbeitsmarkt- und Berufsforschung". In: Allgemeines Statistisches Archiv 89, S. 159-182

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Legal Standards for De-identification

Alexandra Wood

Berkman Klein Center for Internet & Society at Harvard University

Presentation before the Commission on Evidence-Based Policymaking
February 24, 2017

These opinions are my own. They are not the opinions of the Berkman Klein Center, any of our funders, nor (with the exception of co-authorship on previously published work) my collaborators.

Evolving landscape for government data releases

- Government agencies are making efforts to release more information to the public for a wide range of purposes from transparency and accountability to scientific research and innovation.

- Releasing data about individuals inherently carries privacy risks.

- De-identification has long been used to enable the release of data while addressing privacy concerns.

- However, scientific understanding of privacy is evolving and traditional approaches to de-identification are increasingly shown to be inadequate.

Overview of US legal framework for de-identification

- De-identification standards are highly sector- and context-specific and vary widely depending on the setting. For example, some standards provide an objective for de-identification, while others prescribe a method for de-identification.

- Applicability is typically a binary determination that turns on the interpretation of terminology such as personal information, personally identifiable information, or individually identifiable information.

- Practices also vary, but generally are heuristic and focus on withholding, removing, or coarsening pieces of information considered to be identifying.

Variations in standards: Selected laws

- HIPAA Privacy Rule

- Family Educational Rights and Privacy Act

- Confidential Information Protection and Statistical Efficiency Act

- Massachusetts data security regulation

HIPAA Privacy Rule

Method #1 for de-identifying data: Expert determination

A person with appropriate knowledge of and experience with generally accepted statistical and scientific principles and methods for rendering information not individually identifiable:

(i) Applying such principles and methods, determines that the risk is very small that the information could be used, alone or in combination with other reasonably available information, by an anticipated recipient to identify an individual who is a subject of the information; and

(ii) Documents the methods and results of the analysis that justify such determination

HIPAA Privacy Rule

Method #2 for de-identifying data: Safe harbor

(i) Categories of information from a list of 18 identifiers (e.g., names, geographic units containing 20,000 or fewer people, dates (except year), telephone numbers, Social Security numbers, etc.) are removed, and

(ii) The covered entity does not have actual knowledge that the information could be used alone or in combination with other information to identify an individual who is a subject of the information.

(45 C.F.R. § 164.514)

Family Educational Rights and Privacy Act

Permits the release of de-identified information, without consent, "after the removal of all personally identifiable information provided that the educational agency or institution or other party has made a reasonable determination that a student's identity is not personally identifiable, whether through single or multiple releases, and taking into account other reasonably available information." *(20 C.F.R. § 99.31(b)(1))*

Personally identifiable information includes, but is not limited to, names, addresses, personal identifiers (e.g., SSNs, student numbers, biometric records), indirect identifiers (e.g., date of birth, place of birth, mother's maiden name), other information that, alone or in combination, is linked or linkable to a specific student that would allow a reasonable person in the school community, who does not have personal knowledge of the relevant circumstances, to identify the student with reasonable certainty, or information requested by a person who the educational agency or institution reasonably believes knows the identity of the student [in the requested record]. *(20 C.F.R. § 99.3)*

Confidential Information Protection and Statistical Efficiency Act

CIPSEA protects data in identifiable form, meaning "any representation of information that permits the identity of the respondent to whom the information applies to be reasonably inferred by either direct or indirect means."

Confidential Information Protection and Statistical Efficiency Act of 2002, Pub. L. No. 107-347, tit. V, § 502 (4) (2002).

Massachusetts data security regulation

Personal information is defined as the combination of

(1) *a Massachusetts resident's first name (or first initial) and last name, and*

(2) any one or more of the following:

    (a) Social Security number,

    (b) Driver's license number or state-issued identification card number, or

    (c) Financial account number, or credit or debit card number.

This definition explicitly excludes publicly available information.

(201 Mass. Code Regs.§ 17.00)

Gaps in the current framework

- De-identification standards in the US often rely on concepts such as personally identifiable information that are not precisely defined.

- Guidance on selecting among and applying privacy measures is limited.

- Standards focus on releases of data in microdata (individual-level) formats.

- Standards and guidance encourage use of a narrow subset of the privacy measures available and hinder adoption of stronger techniques.

- Lack of clear guidance leads to inconsistent practices and uncertainty. As a result, similar privacy risks (or even identical data) are sometimes treated differently by different actors.

Limitations of de-identification more generally

- Advances in the scientific understanding of privacy have demonstrated that privacy approaches relying exclusively on de-identification fail to provide reasonable protection.

- While they may reduce some risks, traditional de-identification approaches

  - Do not prevent all disclosures or protect information in the manner that most individual subjects would expect,

  - Address only a subset of privacy attacks and attackers,

  - Are not readily scalable for use by non-experts, and

  - Often result in the redaction or withholding of useful information.

A modern approach

- In light of the limitations of de-identification, practitioners may consider:

  - Conducting a systematic analysis of informational risks and intended uses, and

  - Implementing a combination of privacy and security controls rather than relying solely on de-identification.

- For example, a **tiered access model** can

  - Closely match combinations of privacy controls to different risks and intended uses at each stage of the information lifecycle, and

  - Bring gains in both privacy and utility for a broad range of uses across different types of data.

A modern approach

Selecting combinations of appropriate privacy and security controls based on informational risks
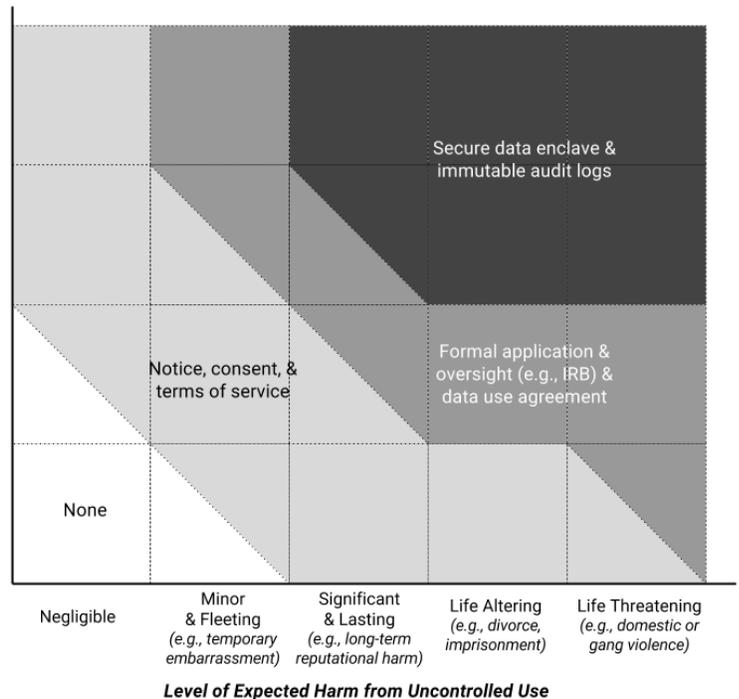
A modern approach: Example tiered access model
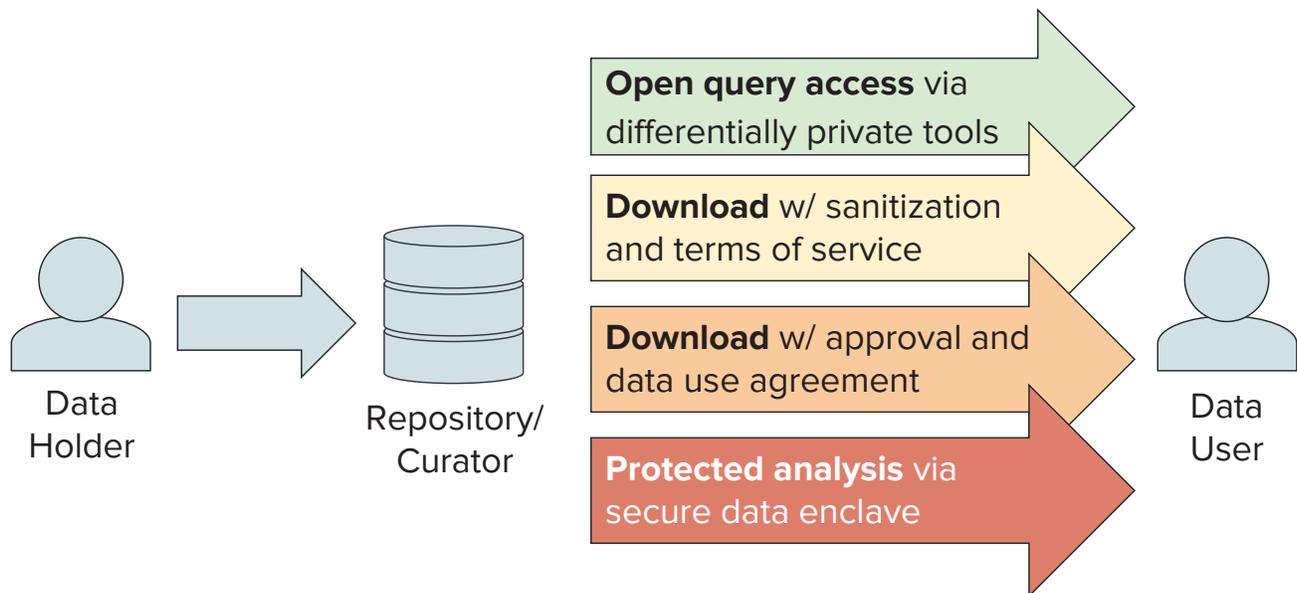
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Micah Altman, Alexandra Wood, David R. O'Brien, Salil Vadhan, and Urs Gasser, **Towards a Modern Approach to Privacy-Aware Government Data Releases**, 30 *Berkeley Technology Law Journal* 1967 (2015).

Alexandra Wood, Edo Airoldi, Micah Altman, Yves-Alexandre de Montjoye, Urs Gasser, David O'Brien, and Salil Vadhan, **Comments on the Proposed Rules to Revise the Federal Policy for the Protection of Human Subjects** (2016).

Available from http://privacytools.seas.harvard.edu
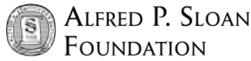
March 13, 2017 Meeting

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Federal-State Partnerships in Support of Data-Informed, Evidence-Based Programs

Maria Cancian

Commission on Evidence-Based Policymaking
March 13, 2017

Research | *Training* | *Policy* | *Practice*

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Context

- **Uncoordinated programs and services are wasteful and often less effective**
- **Sharing information is necessary for coordination and responsible management of taxpayer resources**
- **We need a "Yes, Unless" expectation of data sharing:**
  - Technology and systems with capacity to safely and efficiently share data
  - Rules and policies that support responsible data sharing
  - Empowered governance structures to manage data sharing
  - Agency culture that recognizes the risks of failing to share

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Opportunities for Federal Leadership

- **Clarify permissible practice and expectations**
  - Articulate a "Yes, Unless" culture
  - Remove regulatory barriers, actively support and promote appropriate data sharing as a fundamental responsibility
  - Hold federal agencies and states responsible when failure to share data imposes costs on participants and systems
- **Provide Resources**
  - Guidance and TA on sharing data across program silos
  - Model systems, infrastructure, and tools
  - Support for federal agency efforts (technology, governance, data management), and state integrated data systems

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Recent Examples from ACF (1)

- **Information Memorandum on "Data sharing between TANF and child welfare agencies"**
  - Clarifying *existing* permissions
  - Articulating the logic and benefits of data sharing
- **Comprehensive Child Welfare Information Systems Regulation (CCWIS)** makes data sharing a fundamental component, requiring:
  - New data exchanges with education, courts, and Medicaid
  - A data exchange standard for interfaces with service providers and other agency systems

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Recent Examples from ACF (2)

- **New Division of Data and Improvement within the ACF Office of Planning, Research, and Evaluation (OPRE)**
  - Integrate existing previously disconnected efforts:
    - State system assessment
    - PARIS data matching
    - Support for interoperability and data exchange (e.g. NIEM)
  - Support data sharing across ACF programs (e.g. TANF, child welfare, child support), with other agencies and programs in HHS (e.g. Medicaid) and beyond (e.g. SNAP) with technical and legal resources
  - Support data-informed decision making through improved data systems combined with analytic capacity, planning, and evaluation resources within OPRE

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Recent Examples from ACF (3)

- *Proposed* **State Human Services Longitudinal Data System**
  - Aligns federal and state interests; States as willing partners, with federal government offering TA, peer learning, funding
  - Supports program management and delivers directly to program administrators – improving buy-in and data quality
  - Addresses challenge of harmonization across programs in different organizations, with capacity to roll up to national level
  - Could include incentives and capacity to share data with federal system for administrative use, research/statistical use, or both
- *Proposed* **Systems Innovation Technical Assistance Center**
  - Supports shared software and standards/architecture development
  - Current program funding "vertical" with limited support for integration
  - Current funding state-specific, not leveraging reuse

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Key Objectives of Data Sharing

- **Improving Services, e.g.:**
  - Streamline eligibility determination by sharing verified information across programs to reduce administrative costs and burden on participants
  - Connect information from schools or health providers to child welfare records to improve continuity of educational and health services, avoid waste

- **Measuring Performance**
  - Individual program performance and variation over time or across jurisdictions
  - Indicators of performance drawn from other systems serving the same participant (e.g. the earnings of job training program participants, the educational outcomes of children in foster care)

- **Supporting Formal Evaluations and Research**
  - Reduce the costs and respondent burden associated with surveys
  - Capture detailed and accurate information on government services

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Questions?

Maria Cancian
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Research | *Training* | *Policy* | *Practice*
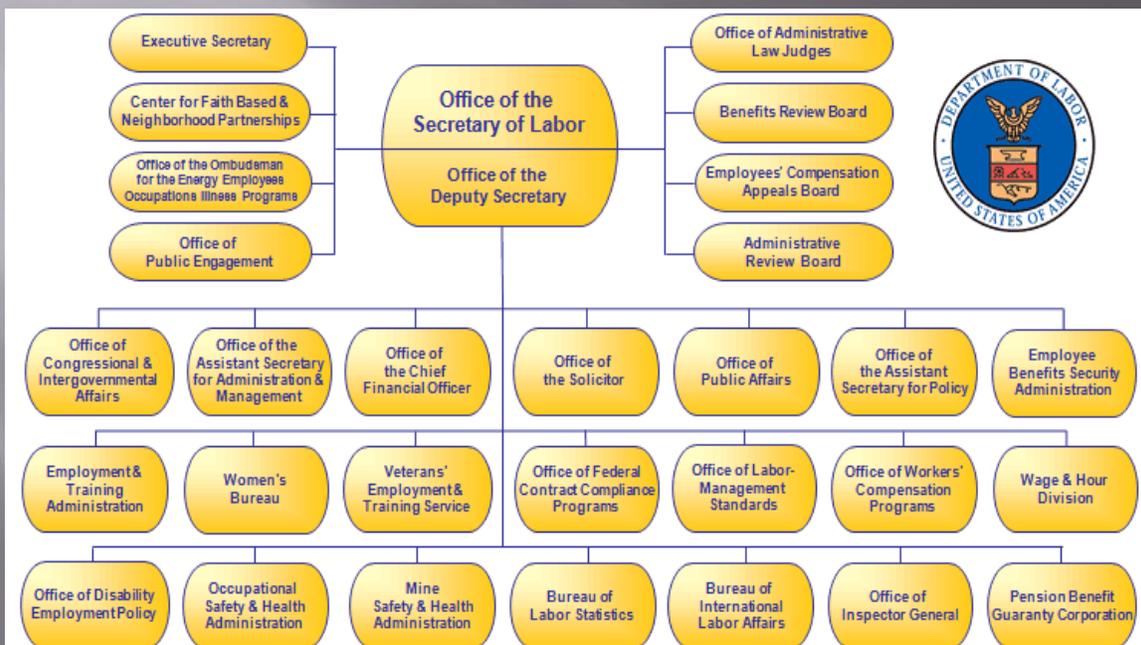
DOL's Model: The Performance Pyramid

Strategic Plan → **Leadership**: vision, what business you are in, and promises about outcomes.

Evaluation → **Accountability**: evidence connecting strategies and outputs to outcomes.

Operating Plan(s) → **Accountability**: strategies, output targets, evidence/ hypotheses about outcomes.

Management Tools → **Reporting on data and deadlines.**

Institutionalization → **Sustained effort** to put performance first

3

"Organizational Culture" is . . . .

. . . an ongoing dialogue between leaders and others in their organization about "how we do things around here."

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GAO Survey: DOL's Statistically Significant Improvement

Table 1: Comparison of 2007 and 2013 Federal Agencies' Average Scores on the Use of Performance Information Index

	Agencies	2007 Average score	2013 Average score	Statistically significant increase, decrease, or no significant change between 2007 and 2013
	Government-wide	3.46	3.41	▼
1	Office of Personnel Management	3.38	3.66	▲
2	Social Security Administration	3.70	3.65	—
3	Department of Labor	3.37	3.58	▲
4	General Services Administration	3.62	3.54	—
5	United States Agency for International Development	3.35	3.52	—
6	Department of Veterans Affairs	3.71	3.49	▼
7	National Aeronautics and Space Administration	3.71	3.49	▼
8	Small Business Administration	3.51	3.47	—
9	Department of Defense	3.35	3.44	—
10	Department of Education	3.49	3.43	—
11	Environmental Protection Agency	3.54	3.42	—
12	Department of the Treasury	3.54	3.41	—
13	Department of Housing and Urban Development	3.57	3.38	—
14	National Science Foundation	3.61	3.37	—
15	Department of Health and Human Services	3.29	3.37	—
16	Department of State	3.36	3.36	—
17	Department of Commerce	3.44	3.35	—
18	Department of Energy	3.52	3.34	▼
19	Nuclear Regulatory Commission	3.70	3.32	▼
20	Department of Transportation	3.35	3.31	—
21	Department of Justice	3.30	3.31	—
22	Department of Homeland Security	3.33	3.22	—
23	Department of the Interior	3.16	3.22	—
24	United States Department of Agriculture	3.16	3.13	—

Source: GAO analysis of federal managers surveys for 2007 and 2013. | GAO-14-747

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Ingredients for Organizational Change (and How the Commission Can Help)

- ➢ Leadership
- ➢ Opportunity
- ➢ Definition of Success
- ➢ Metrics/Visibility Systems
- ➢ Accountability Systems
- ➢ Predictable and Repeatable Processes
- ➢ Mission-Focus Among Staff/Incentive Structures

Expanding the Statistical System's Capacity to Support Evidence-Building

Recommendations to the Commission on Evidence-Based Policymaking
from the Interagency Council on Statistical Policy (ICSP)

Brian C. Moyer

March 13, 2017

The Role of ICSP

- Advises and assists OMB in the coordination of Federal statistical activities
- Fosters interagency coordination and collaboration
- Membership: 13 statistical agency heads + 1 rotating member, led by the Chief Statistician of the United States
- Authorized by 44 U.S.C. § 3504

2

The U.S. Federal Statistical System

- The U.S. decentralized system includes about 120 agencies
- A substantial portion of official statistics are produced by 13 principal statistical agencies

3

View Around the President's Cabinet Table

Agriculture	Commerce	Defense	Education	Energy

Interior		Transportation
Justice		Treasury
Labor		Office of Management and Budget
State		

Homeland Security	Housing, Urban Dev	Veteran's Affairs	Health, Human Services

Independent Agencies

4

Federal Statistical System Decentralized

BEA Uses a Variety of Data
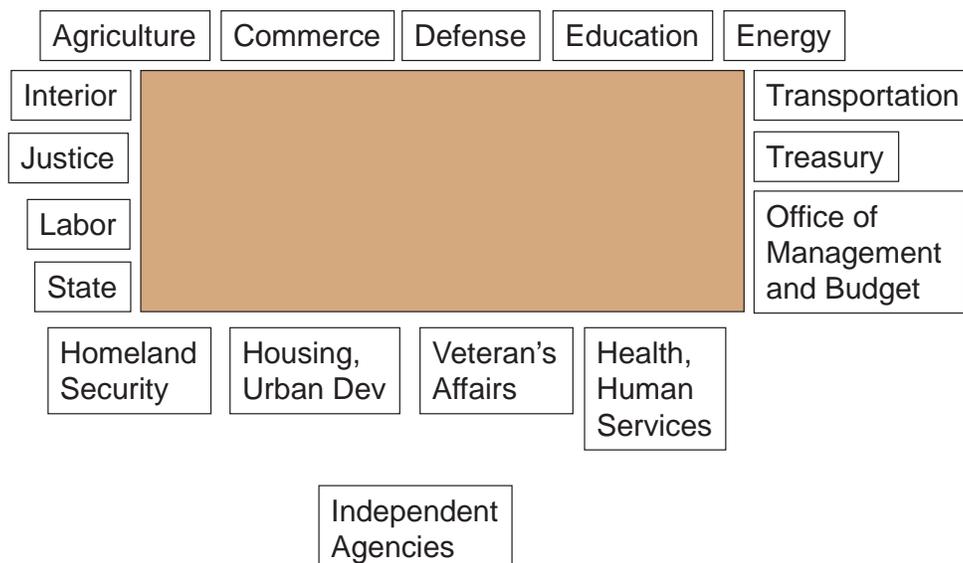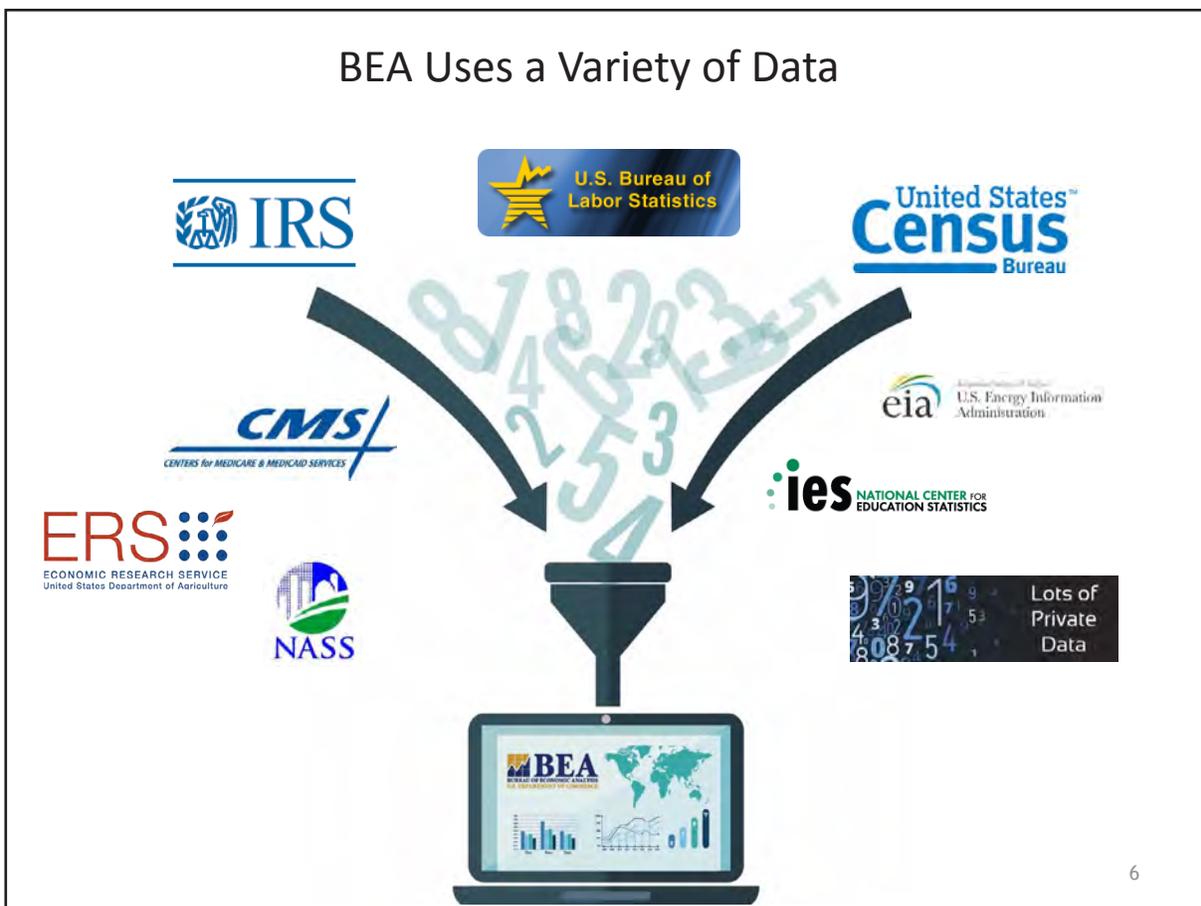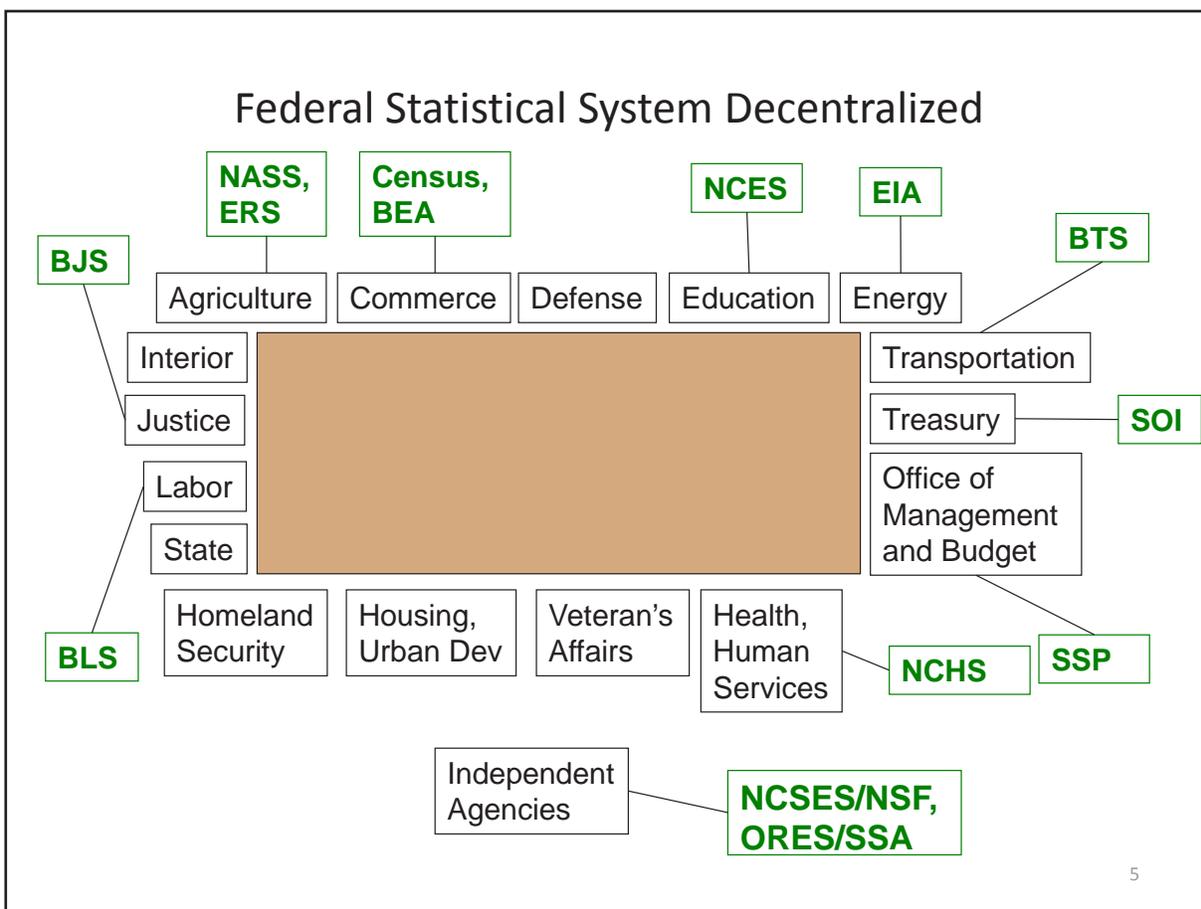
Recommendations

- Establish a research environment that brings together data sets from across the statistical agencies

- Streamline the research approval process to expedite evidence-building work

- Modify legislation to expand the allowed use of administrative data for statistical purposes

- Implement strategies that increase access to and improve the quality of State and Local government data

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Establish a new research environment

- Build a research and computing environment that more fully supports the use of statistical information for a range of activities, including evidence-based policy research

  - Available to governmental and non-governmental researchers

  - Provides convenient data access for users who are not located geographically close to statistical agency operations

  - Equipped with systems designed to enhance privacy and protect data confidentiality

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Streamline the research approval process

- Current approval process is cumbersome

- Recommend modifications to existing process, not elimination

    - Establish review boards composed of technical representatives from the agencies that own the data to be used in the proposed project

    - Harmonized, transparent processes for requesting and accepting research project proposals

- ICSP can oversee and coordinate these modifications

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Modify legislation to expand allowed use of data

- Regulations that are in place to protect data confidentiality and privacy sometimes prevent statistical use of data

    - Example 1: Use of federal tax data by non-Treasury employees is limited to "tax administration" purposes

    - Example 2: Census Bureau has broad access to federal tax data, BEA has limited access, and BLS has no access

- Recommend broadening/amending language in the Internal Revenue Code to address above examples

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Increase access to and quality of State and Local data

- Many valuable types of administrative data are collected by State and Local governments but made available only in a limited manner to Federal agencies

- Process for Federal agencies to acquire the data can be very time-consuming and costly (e.g. BLS QCEW agreements)

- ICSP can oversee a review of existing State and Local data collections to assess current needs and avoid duplication of requests made by Federal agencies

  - Use results to formulate consolidated requests by Federal agencies, identify pilot projects to improve data quality

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From Strategy to Action:
Improving Program Outcomes through
Targeted Data-Sharing Across Programs

Commission on Evidence-Based Policymaking
March 13, 2017

Presented by:

Erin Ulric, MPH, Nutrition Services Branch Chief (WIC, CACFP, Early Childhood Obesity Prevention)

Colorado Department of Public Health and Environment

In Today's Discussion:

- Describe Colorado WIC, the services it provides and the data it collects

- Present Colorado WIC's strategic planning efforts including a focus on measuring progress towards goals

- Describe the current data sharing efforts in WIC and across the state (specifically with the Census Bureau)

- Share barriers to expanding data sharing across efforts for Colorado and other Mountain Plains Region WIC States

What is WIC?

WIC is The Special Supplemental Nutrition Program for Women, Infants and Children.

WIC's goal is to help keep low-income pregnant and breastfeeding women, infants and children younger than age 5 healthy. To do this, WIC provides:

• Personalized nutrition consultation

• Breastfeeding information, support and referrals

• Free, healthy food

• Referrals for medical and dental care, health insurance, child care, housing, lactation support, and other services that can benefit the whole family

WIC WOMEN, INFANTS, & CHILDREN   CO

What data do we collect?

Basic demographic information

Quantitative and Qualitative Nutrition Measures

Information about all services provided during the appointment

WIC WOMEN, INFANTS, & CHILDREN   CO
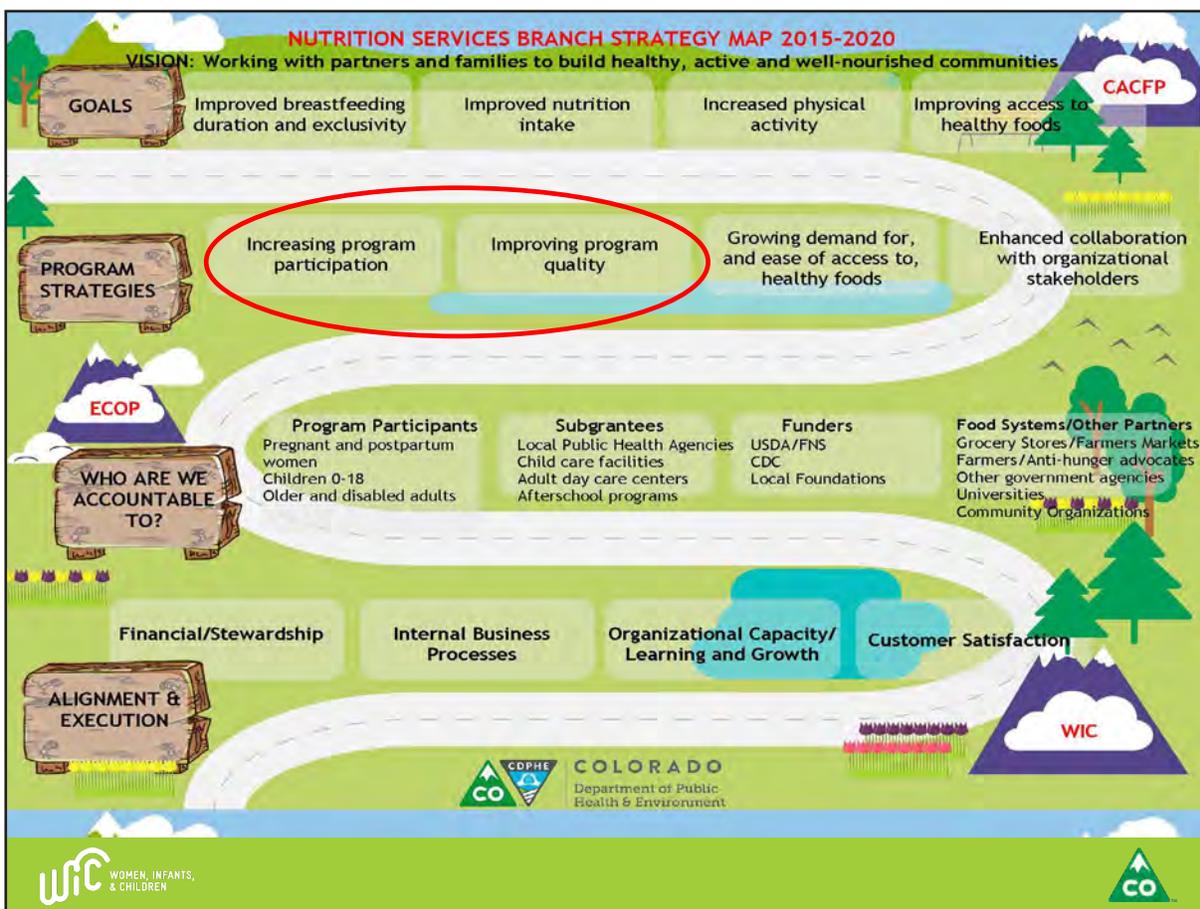
Colorado WIC and the Census Bureau

- Agreement between US Census and USDA was signed in August of 2014.

- The agreement between Colorado WIC was formalized in March of 2015 and the final data compilations were provided to Colorado WIC in May of 2016.

- Data provided showed potentially eligible populations from calendar years 2013 and 2014

Use of Census Bureau Data

- Track program performance and identify populations for targeted outreach

- Colorado Gap Map
  www.gapmap.org
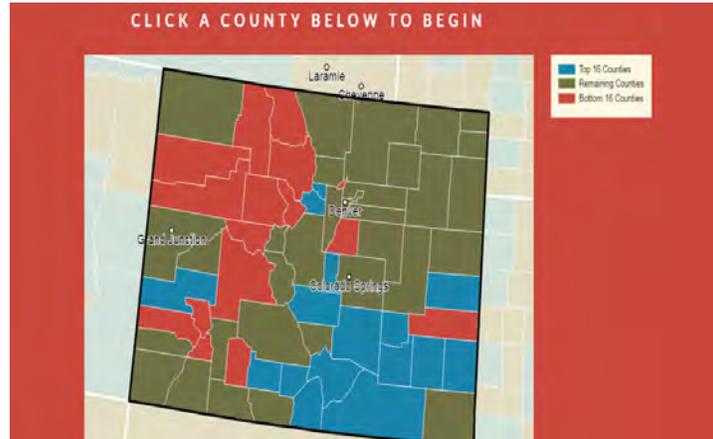
CLICK A COUNTY BELOW TO BEGIN

Top 16 Counties
Remaining Counties
Bottom 16 Counties

Table 1a. WIC Modeled Eligibility and Participation Rates (%) by Infant and Child Characteristics, Infants and Children, 2013.

	Eligibility		Participation	
	Estimate	SE	Estimate	SE
Total	51.7	(0.9)	58.6	(1.5)
Age				
0	52.4	(2.1)	64.0	(3.2)
1	53.3	(2.0)	66.4	(3.3)
2	54.1	(1.9)	64.1	(2.9)
3	51.0	(2.1)	53.0	(3.3)
4	47.8	(1.7)	44.4	(3.0)

Table 1a. WIC Modeled Eligibility and Participation Rates (%) by Infant and Child Characteristics, Infants and Children, 2014.

	Eligibility		Participation	
	Estimate	SE	Estimate	SE
Total	53.5	(1.0)	55.1	(1.4)
Age				
0	54.9	(1.8)	67.6	(2.5)
1	52.9	(2.2)	62.2	(2.8)
2	53.7	(1.8)	57.2	(2.8)
3	53.8	(2.0)	47.7	(2.7)
4	52.5	(1.8)	41.3	(3.3)

Barriers to Data Sharing

- Complexity of data and a lack of resources to understand and extract the data

- State leadership buy-in and encouragement of data-based decision making

- Different legal interpretations of data-sharing by state/agency/program

- Collaboration between programs to understand what data is available and how it can be used

Future support for data-sharing

Increased technical assistance and legal guidance around acceptable data-sharing from the Federal level to the States

Targeted funding for research, data collection and analysis

Involve third party entities (i.e. National WIC Association, American Public Health Association) in disseminating best practices to their respective members to increase buy-in

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Appendix G: CEP Public Input–Hearing Testimony and Other Public Comments

The Commission provided numerous opportunities for any member of the public to provide input to the Commission's fact-finding. The Commission convened three open public hearings—in Washington, DC, Chicago, and San Francisco—during which any member of the public who requested to testify before the Commission was allowed to present. A total of 39 members of the public presented information during the three hearings.

The Commission also issued a Request for Comments in the Federal Register and accepted comments by email, which generated over 350 responses from the public.

Appendix G includes written testimonies, a copy of comments submitted to the Request for Comments, and other public comments provided to Commissioners and staff.

Washington, DC Public Input–Hearing Testimony

H1_2016_06
October 21, 216 Hearing
Young Invincibles
Presenter: Tom Allison

Abstract

Policymakers are making decisions about higher education without crucial performance measurements. The Commission on Evidence-Based Policymaking represents a unique opportunity to address this problem, and collect and use the information students prioritize the most: how different colleges serve today's diverse student bodies, which majors and programs lead to specific occupations and industries, and whether students are repaying their student loans.

Statement

Thank you for the opportunity to speak before you today. My name is Tom Allison and I am the Deputy Director of Policy and Research for the Young Invincibles, a national research and advocacy organization working to expand the economic opportunities for young adults.

We know a lot about college and universities: how much schools charge for tuition and fees, how many students they enroll, and what types of programs or majors they offer.

We also know a lot about jobs and workforce trends: how many people are unemployed, how much money different types of workers make, which industries are growing and shrinking, and what skills employers are looking for in their workers.

The problem arises however, when attempting to draw connections between what we know about colleges and universities, and what we know about jobs and the workforce. Preventing us from connecting that link, is the Student Unit Record Ban, a single paragraph in the 2008 reauthorization of the Higher Education Opportunity Act, prohibiting the Department of Education from collecting and using student-level data. This is frustrating for today's students, who carry challenges and aspirations unique from previous generations, and the majority of which pursue higher education to improve their economic opportunities. Choosing where to go to school, what to study, and how to pay for it comes with the highest stakes of any decision in their life. Students and families need and deserve better insight to inform these decisions.

Moreover, without outcomes information on which schools and programs lead to jobs and ultimately financial security for their graduates, policymakers are left in the dark, unable to intelligently align funding with policy priorities. Colleges are also blind to students' trajectories after they leave campus and cannot adjust academic programs or systems to ensure students can land good jobs or pursue further education.

Over the course of two years, Young Invincibles conducted workshops, listening sessions, and roundtable discussions with current and aspiring college students across the country to better understand their priorities and values in attending and paying for college. We synthesized their voices in the Student Agenda for Data Reform and organizations representing over one million students currently support it. We will submit it in our written comments to the Commission, but in brief the agenda calls for overturning the student unit record ban, collecting more information about innovative platforms and alternatives to traditional higher education, and to protect the privacy and security of sensitive student information.

DC ■ CA ■ IL ■ NY ■ TX

younginvincibles.org

Facebook: /together.invincible | Twitter: @younginvincible

I'd like to dedicate the remainder of my time to read comments from a former student leader and recent graduate from the University of Nebraska, named Thien, whose story illustrates the need to improve our postsecondary infrastructure:

> As a 17-year-old, I did not have nearly enough knowledge of federal loan programs, extra college fees, trends in increasing tuition costs, or credit transferability to make the best possible decision when considering the investment I was making in paying for school. Some online tools can be helpful in estimating front-end costs, but they do little to educate on what life after graduation, or dropping out, would bring. It only takes a few clicks for a student to receive thousands of dollars in loans, but some can end up repaying them for decades afterward. Colleges need to be more transparent when advertising their costs by also informing prospective students on the costs that go along with repayment.
>
> We need more information on which schools best serve first generation and minority students like myself to feel comfortable and assured we'll find a college committed to our success. A college campus can be a very unfamiliar environment when you don't have family members to help navigate the strange new setting. Our institutions of higher education need to paint a more accurate picture of their minority communities, and the rate of success of those communities experience after graduation, including how prepared they are for the workforce. It's a great resource for some of us, who are not used to asking for help and may let ourselves fail out of college before mentioning anything to anyone, but it's frankly not enough.
>
> I can't speak for every low-income, first generation, minority college student in America, but I know these words resonate with a lot of my peers. While we know we need to take the reins of our own success, we need to be empowered to do so, and it is clear that there is a lot of information that needs to be made available before students can make a decision that will impact the rest of their lives and those close to them. What we need right now is better data, more of it, and to have it in a transparent and easily digestible form.

You can read the rest of Thien's story and others on our website. Thank you for your time.

H1_2016_10
October 21, 2016 Hearing
Pew-Macarthur Results First Initiative
Presenter: Sara Dube

October 14, 2016

Dear Members of the Commission on Evidence-Based Policymaking:

The Pew Charitable Trusts promotes transparency and accountability in government through the use of rational, reliable decision-making based on facts and evidence. We bring forth research that shows which policies, practices, and programs are effective. We have used this evidence-based approach to support successful home visiting programs for new mothers, evaluations of state-based tax incentives, and public safety programs to reduce recidivism. Our experience shows that helping policymakers enact evidence-based policies—those that improve states' fiscal health and enjoy broad bipartisan appeal— shifts policymakers' thinking about how to invest taxpayer dollars. As lawmakers see the benefits of evidence-based policymaking in one key policy area, they are more inclined to explore reforms in others.

One of our most successful evidence-based initiatives is the Pew-MacArthur Results First project, a joint effort of The Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation. A growing number of states and counties are partnering with the project to make evidence-informed decisions in eight policy areas. At present, we work with 22 states and seven counties to incorporate rigorous research into their policy and budget processes and use evidence to identify and invest in programs that achieve successful outcomes and positive returns on investment.

We applaud the federal Evidence-Based Policymaking Commission's work and share your commitment to bring data and evidence to the forefront of federal decision making. We stand ready to be a resource as you consider how federal policies and practices could support state efforts to use data and research in the policymaking process—and offer our experiences at the state and county level that can inform federal level policies and practices.

The Results First approach includes:
- Creating an inventory of currently funded programs;
- Assessing which programs are most likely to work, based on the best available research;
- Utilizing the customized Results First cost-benefit model to compare programs based on their expected return on investment; and
- Using the results to inform budget and policy choices.

New Mexico has used the Results First approach to compare the expected outcomes of adult criminal justice, child welfare, early education, and behavioral health programs. Using their Results First analysis, state leaders directed more than $100 million to evidence-based programs. In addition, the state is building a culture of evidence by incorporating evidence into their policymaking processes. For example, the Corrections Department adopted a policy that mandates that 70 percent of funds are directed to evidence-based programs. The department also adopted contracting standards that require vendors to document their use of evidence-based practices and monitor outcomes for programs that are developed in New Mexico to ensure that they meet the state's goals.

Mississippi passed legislation in 2014 establishing evidence standards for evaluating the state's corrections, health, education, and transportation programs. Using the Results First model, the state determined that a shock incarceration program—a paramilitary, boot-camp intervention—currently required by statute has been proven ineffective by national research. The legislature subsequently moved to eliminate the program in 2017, and is now developing an evidence-based alternative. In addition, the state, through its budget instructions, now requires executive agencies to justify funding for any new program by identifying evidence supporting the program's effectiveness. Mississippi policymakers expect to use this information to bolster the state's reinvigorated performance-based budget system.

New York State has used the Results First framework to target more than $50 million in state general funds over three years toward effective evidence-based alternatives to incarceration programs. Recipients of these funds are required to show that the programs are being implemented according to their original design—demonstrating fidelity—and that they are achieving expected outcomes. The state also leveraged its Results First analysis to compete for and win a $12 million "Pay for Success" grant from the U.S. Department of Labor.

Iowa's Results First analysis confirmed that the state's existing community-based domestic violence treatment program was not effective in reducing recidivism among domestic abusers. In fact, the model showed that the state was losing $3 for every $1 invested in the program. To improve outcomes for both victims and taxpayers, the department partnered with the University of Iowa to pilot an alternative program known as Achieving Change Through Value-Based Behavior, or ACTV. Preliminary results of the pilot demonstrated positive effects in reducing recidivism and the department subsequently began shifting funds away from the ineffective program and toward ACTV.

Colorado has completed program inventories and cost-benefit analyses in the adult criminal justice, juvenile justice, and child welfare policy areas, and is using their results to re-allocate funds in the FY 16-17 state budget. For example, the state will repurpose $1.9 million in FY 2016- 17 and $2.4 million in subsequent years for a new community corrections pilot project for at-risk offenders, centering the offender's treatment on cognitive behavioral therapy (an evidence-based program). The state has also dedicated $7.2 million (in FY 2016-17, with investments of $9.5 million each year after) to Communities That Care, a prevention system designed to reduce levels of adolescent delinquency and substance use through the selection and use of effective evidence-based preventive interventions tailored to a community's specific profile of risk and protection.

These are just a few of many examples of states using evidence to inform their budget and policy choices. We will submit additional examples and information in response to your request for comments via the Federal Register.

As you develop your recommendations, please consider the effect of federal policies on these state and local efforts, and feel free to contact us and our partners with any questions about the lessons learned at the state level and how they could be applied at the federal level.

Thank you,

Sara Dube
Director, Pew-MacArthur Results First Initiative
The Pew Charitable Trusts

H1_2016_02
October 21, 2016 Hearing
National Prevention Science Coalition to Improve Lives:
Diane Fishbein

> An Automated Evidence-Based-Policy Clearinghouse for Researchers, Practitioners, Federal
> Agencies, and Policymakers: A Proposal to the New Evidence-Based Policymaking Commission

We are aware of your new Evidence-based Policymaking Commission, recently created by Congress and signed into law by President Obama. The bipartisan members who conceived of the need for this Commission are to be congratulated—a recognition of the need to infuse scientific evidence into the decisions of policy-makers is the first step to effectively designing policies that improve our lives while not wasting tax-payer money on unproven strategies.

Our understanding is that Commissioners have been charged with three general tasks: (1) to improve the federal data infrastructure while respecting privacy and security concerns; (2) to incorporate outcomes measurement, cost-benefit data, evaluation, randomized controlled trials (RCTs), and rigorous impact analysis into federal program design; and (3) to consider the value and nature of a clearinghouse that would facilitate access to data by various constituencies and enable the research community to judge what works and what does not.

The Commission will focus on ways to incentivize the rigorous evaluation of programs and policies that aim to reduce the problems associated with detrimental prevailing conditions and promote more healthful and productive outcomes. Until now, many programs we invest in do not possess stringent indicators of their effectiveness and, thus, there is no justification for their continuation.

There is a wealth of data already collected by the federal government and other agencies and organizations reflective of a broad range of phenomena, from physical health to juvenile and criminal justice to climate change. Existing data reserves are currently not well organized and thus an infrastructure is needed to increase the utilization of these data.

To facilitate the process of organizing and fully utilizing the data, we recommend a means to directly and expeditiously improve policy decisions. Our proposal is highly compatible with the law by incorporating federal agency and other data, as well as methodological components that will be readily accessible and understandable to those who stand to benefit. And we believe there will be widespread support from Congress, the White House and a number of organizations which have an interest in evidence-based policy-making.

We propose that the federal government (and expert contractors) develop an automated clearinghouse—perhaps called the "National Evidence-Based Toolkit for Intuitive Navigation" (NETIN)—that will provide comprehensive information regarding evidence-based programs and policies (EBPs) to users; e.g., researchers (who can populate the database), policy-makers (who need to know what to legislate and fund), and community organizations, practitioners and government agencies (that need to identify best practices). The data populating this toolkit will provide parameters needed to readily map available EBPs to existing needs, whether that be to identify best violence prevention practices for any given community or to determine which policies to fund to reduce poverty. Also needed is flexibility to include innovative and/or promising programs that have yet to be subjected to rigorous evaluation but are in the database denoted by their stage of development and need for further study (as per the #2 mandate above).

Parameters will be intuitively searchable and fields will be delineated by relevant characteristics; e.g., outcome of interest (e.g., diabetes, violence, contaminated water); setting (e.g., school, family, community, national); target population (e.g., special needs children, parents, community stakeholders, minorities); implementation protocols and frameworks (costs, timeline expectations to achieve impact, strategies to shift resources from existing to promising or evidence-supported approaches); pertinent literature and resources on assessing and utilizing research; cost-benefit analyses; and other information deemed helpful. The goal is to provide a comprehensive, one-stop resource that is more user-friendly and searchable on dimensions that are not currently available, providing an efficient and valid method to guide evidence-based policy-makers and others who might benefit from the resource.

The system would be both iterative and interactive; e.g., a search for a category of programs may elicit a notation about the need for extra diligence or a particular protocol for implementation. Or reference materials may be recommended if using certain interventions. At all stages of navigation, weblinks would lead to relevant information.

Finally, the Clearinghouse would provide a searchable methodology section for researchers who want to fill in gaps in the Clearinghouse database. There would be guidance on design, methods, statistical techniques, evaluation protocols, and strategies for translation.

We realize this will be a very large and complex undertaking that will take years to complete and will require continual updating. There will also be a need to establish criteria and thresholds for designating programs and policies as evidence-based, not only relative to the statistical findings from RCTs, but the population significance of those results (e.g., how broadly are effects achieved?). Fortunately, there are a number of existing registries that evaluate programs; they can be utilized and integrated as best seen fit. The Commission and their advisors will also want to make decisions about what policy areas to cover (from human behavior and health to security, the economy, and the environment). These objectives for a clearinghouse can be accomplished with sufficient funding and commitment, as well as by calling upon the expertise of evidence-based policy-making organizations, academics, researchers, current registry experts, federal government database keepers, implementation scientists, methodologists, computer scientists, and statisticians. And critical to this effort, to ensure its usability and utility, input must be sought from all potential users (e.g., community groups, policy-makers, agencies, foundations) working in concert with experts.

This proposal is reflective of what policy-makers, practitioners, stakeholders and others need to make informed, adequately justified, and effective decisions when identifying programs and policies that will serve communities and the nation. We have outlined a general roadmap for the creation of a clearinghouse—the Commission's 3rd consideration—with details to be fleshed out after thorough discussion and consultation. Our hope is that the Commission will include such a plan that will bring to fruition their charge to design a data infrastructure and incorporate results from existing and newly conducted studies. There is potential to greatly improve the operations of government, the services provided to citizens, and their financial impact.

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260-568-0116

H1_2016_04
October 21, 2016 Hearing
New America
Presenter: Rachel Fishman

Rachel Fishman, Senior Policy Analyst at New America
Submission for the First Public Hearing of the Commission on Evidence-Based Policymaking (CEP)

Abstract: The US Department of Education puts out $130 Billion a year on federal financial aid to help students go to college, and billions more are spent by other federal agencies on higher education through tax credits, the GI Bill, and more. Despite having a tremendous amount of administrative data, policymakers, students, and families know shockingly little about how particular schools and programs are serving students due to a law banning the connecting of these data sets. In an era when college has never been more important nor more necessary, we believe this issue is one the Commission should address directly.

Oral and Written statement: Thank you for the opportunity to speak today about the better use of existing higher education data to support improved decision making by families and policymakers. My name is Rachel Fishman and I am a Senior Policy Analyst at New America in the Education Policy Program which uses original research and policy analysis to help solve the nation's critical education problems.

It's hard to open a newspaper or turn on the television these days without finding another report of the questionable value of college degrees. As anxiety over student debt and college costs reaches new heights, the public is growing increasingly uncertain about the value of a college education. The answer to the question "Is college worth it" is an unequivocal "yes." *On average*. But the real question is: In which program, at which college, at which price and for which students is it worth it?

Students, families, and taxpayers are spending unprecedented amounts on higher education, but remain largely in the dark about *how* to spend these precious dollars. And while colleges and universities spend hundreds of thousands of hours collecting and reporting data, they don't know how their students are faring compared with similar students at similar schools. Institutions of all types are subsidized with hundreds of billions of dollars a year in federal financial aid (not to mention billions more in tax credits, GI Benefits, Department of Labor funds, and more), but taxpayers don't know if these dollars are being wasted at diploma mills or poor-performing institutions. Policymakers have no sense of whether their reforms and investments are helping or hurting the families that most need the boost higher education can provide. At a time when higher education has never been as important or as expensive, it's unimaginable that we can't answer these critical questions.

Why can't we answer them? Because the federal government either doesn't have—or can't use—the right data. That's true, not because it is technically impossible, but because it is illegal. In 2008, Congress passed a law that banned the creation of a federal student unit record system to enable *existing* data systems to speak with one another and answer critical questions.

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The current hodgepodge of data systems cannot answer basic question like:

- How do part-time and older learners fair in the current system?
- What happens to students who transfer from particular colleges?
- How many—and which—students complete at particular colleges?
- Do students who get some of the more than $30 Billion spent annually on Pell Grants graduate?
- Are graduates able to find jobs that allow them to pay down their debts?

A system that uses already-collected administrative data would allow us to answer these questions.

Creating a Student Unit Record would not require the collection of additional student data, but would allow the connecting of existing data already held by a variety of federal and state agencies. Protecting these data at all points of the lifecycle is crucial, and it is worth considering housing such a system in the Department of Education's National Center for Education Statistics, which is classified as a statistical agency and therefore subject to stringent privacy and security requirements under the Privacy Act of 1974, the Education Sciences Reform Act of 2002 (ESRA), and the E-Government Act of 2002. We can also look to state level systems for best practices that could be implemented at the federal level.

We believe using existing administrative data to better understand the outcomes of students at our nation's colleges is exactly the type of critical policy issue the Commission was designed to address. We know we have just scratched the surface here today and we will provide much more detail about the existing administrative data sources as well as privacy and policy considerations in separate written comments. Thank you for your time and attention and I look forward to answering any questions.

AMERICAN
EVALUATION
ASSOCIATION

H1_2016_03
October 21, 2016 Hearing
American Evaluation Association
Presenter: George Grob

Statement of

George F. Grob
Chair, Evaluation Policy Task Force
American Evaluation Association

For the Commission on Evidence-Based Policymaking

The Value and Methods of Evaluating
Government Programs Throughout Their Life Cycle

Rayburn House Office Building
Washington, D.C.
October 21, 2016

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American Evaluation Statement
for the
Commission on Evidence-Based Policymaking

Thank you for the opportunity to discuss the important topic of evaluation of federal programs. I am a professional independent evaluator, formerly Director of Evaluation at the Office of Inspector General, Department of Health and Human Services and the Federal Housing Finance Agency. I am writing as Chair of the Evaluation Policy Task Force of the American Evaluation Association (AEA), the professional organization devoted to the application and exploration of evaluation in all its forms since 1986.

AEA has approximately 7,000 members across all 50 states, as well as 80 other countries. Members have gathered together from many interdisciplinary fields (such as public policy and administration, political science, economics, statistics, psychology, sociology, education, public health, demography, ethnology, etc.) to create a community of learning and practice over the past three decades. Members in academe have worked to develop, refine, and teach evaluation methods, while members in practice have served the evaluation needs of many organizations including agencies across the federal government. Members serve in many federal evaluation, policy, and inspector general offices, and at the Office of Management and Budget.

AEA has developed professional standards for the quality of studies and ethics for the multidisciplinary members of the field. Of particular interest today is AEA's paper: *An Evaluation Roadmap for a More Effective Government.* This document describes many types of evaluation that can address management requirements, as well as principles and practices for ensuring evaluation quality and usefulness, including methods, human resources, budgets, independence, transparency, and professional ethics in a government setting. For your convenience, I have attached a copy for your reference.

I focus here on three main topics: 1) the importance of evidence and the availability of data for government decision makers; 2) evaluation methods; and 3) evaluation in government settings.

Evidence and Data for Decision Makers

Government decision makers, including both the Congress and Executive Branch agencies, need appropriate evidence to make informed decisions to assess and improve the relevance, efficiency, and effectiveness of government programs, policies, and activities (hereafter "programs"). AEA applauds the work of the Commission to help Congress embed evaluation into program design and to ensure that quality data are available for evaluation.

Federal program design should include an appropriate evaluation framework to guide data collection and use over the life of a program. This includes data needed for rigorous impact evaluations as appropriate. Measures of a program's key processes and outcomes should be established while the program is being conceived and developed. In fact, taking time during the process of conceptualizing a new program to specifically define expected outcomes is most useful in establishing relevant metrics. Preliminary metrics should be put into place by the time program implementation begins, thus allowing key data to be collected to monitor program

implementation, determine progress, and set the stage for methodologically rigorous studies. It is vital for some study methods that data be collected prior to the program intervention.

We support the Commission in its efforts to consider *whether and how a clearinghouse for program and survey data should be established*. We encourage efforts to ensure that verifiable, reliable, and timely data are available to permit the objective evaluation of programs, including an assessment of assumptions and limitations in such evaluations. Agencies should use evolving best practices for data security, and ensure that publicly available data are aggregated or otherwise stripped of all information that could be used to identify particular individuals or businesses.

The proposed clearinghouse could also serve as a repository for the evidence contained in evaluation reports, providing an archive capacity for the collection, dissemination, and preservation of knowledge and lessons learned from evaluation studies. This would provide an enhanced base for guiding future program design and management, which often requires a critical mass of knowledge to properly comprehend and address the complexity of program processes and influences. It would also be a great benefit for future meta-analyses of evaluation findings.

While recognizing the high value and strategic importance of large-scale archives and datasets, the availability of these existing data should not reduce the capacity to gather targeted data as needed to address important program evaluation questions.

Evaluation Methods
The Commission is charged with making *"recommendations on how best to incorporate outcomes measurement, institutionalize randomized controlled trials, and rigorous impact analysis into program design."* We believe that the key to such evaluation activities is for federal entities, (including Congress, as well as Executive Branch agencies and the White House Office of Management and Budget (OMB)), to identify the important evaluation questions that they need answered to effectively direct the future of Federal programs. Such questions could be effectively embedded in authorizing legislation or in congressional committee reports associated with legislative authorizations or renewals. Executive Branch agencies can do so in their budget documents and implementation plans. Evaluators, in consultation with other experts, can then identify which scientific methods are best suited to answer those questions. Specifically defining program activities and expected outcomes has proven very useful in choosing relevant evaluation questions about program operations and impact.

Such questions, and associated evaluations, are needed throughout the life cycle of programs, from their initial authorization through all phases of their implementation. For example, during early stages in the life of programs, key questions might center on the fidelity of their implementation with statutory requirements and on early implementation problems and successes. As the program matures, decision makers might want to establish metrics to track such features as enrollment of intended beneficiaries or establishment of required administrative systems and other infrastructures. Gradually, interest may shift to outputs, in terms of benefits provided and beneficiaries served. Ultimately, decision makers and citizens will want information about the impact of programs on people's lives, the economy, public health, safety,

or other factors or goals associated with the purpose of the programs. Throughout the life of the programs, government officials and taxpayers will want to know if funds are being misspent or wasted.

While interest will ultimately focus on program impact and value received for investments made, citizens and decision makers do not want to wait until a program has run its course and then determine whether it has been working. Along the way, they will want to know if implementation problems can be corrected and whether the programs can be improved.

All of these questions are important. But the methods for answering them can be complex. Evaluation professionals have a broad range of methods—based on research— from which to draw on to answer both impact and operational process questions. Rather than legislating, requiring, or overemphasizing any single specific method for impact analysis in federal guidance, AEA recommends that federal policy require that careful consideration be given to a range of evaluation methods that may be appropriate or feasible in any given circumstance.

Over the years, the evaluation field has developed an extensive array of analytic approaches and methods that can be applied and adapted to a wide variety of programs and circumstances, depending on the program's characteristics and implementation stage, the way the results will be used, and the kinds of decisions that need to be made. In designing evaluation studies it is important to recognize that every method has pros and cons and strengths and weaknesses that must be addressed in matching them to answer the specific questions, circumstances, and intended uses of results. There are real-life factors which can render designs infeasible, impractical, or inappropriate. To ensure adequate deployment, every study design must examine and address feasibility constraints, including resources (funding and time limits), conditions in the field, ethical considerations, stakeholder concerns, etc. All evaluation methods should be context-sensitive and have cultural relevance.

Agencies should not only focus on tools for evaluation inquiry, but foster evaluation thinking as well. High-stakes program decisions should be based on a preponderance of evidence developed using sound methods. Some programs may need a high level of credibility and precision in the portfolio of evidence upon which leaders base a decision. This may require multiple studies and methods as well as a combination of process and impact evaluations to assess and understand the effectiveness of an approach within the portfolio of evidence. A range of analytic methods may be needed, and often several methods—including quantitative and qualitative approaches— should be used simultaneously. Multiple methods can offset the shortcomings of any one method with the strengths of another.

In fact, some decisions about how to improve the reach and impact of a given program may not require a high level of precision or a large portfolio of evidence. Some evaluation approaches are particularly helpful in a program's early developmental stages, whereas others are more suited to ongoing and regularly implemented programs or to ex-post analysis of temporary programs upon their completion. The broader policy and decision-making context also can influence which approach is most appropriate. Sometimes information is needed quickly, requiring studies that can use existing data or rapid data-collection methods; at other times, more sophisticated long-term studies are required to understand fully the dynamics of program

administration and beneficiary behaviors. Moreover, different approaches can complement one another.

The opportunity to capitalize on early successes, identify implementation impediments, or make mid-course corrections is critical. So it is essential to conduct ongoing formative evaluation throughout the program's life cycle. For example, evaluation can address questions that arise during implementation of the program, such as the validity of assumptions that underlie program design, or challenges to implementation in the field. Early in the program's history, relatively simple information may be needed quickly (e.g., regarding obstacles to participation in the program). Evaluators should match the methodology to the questions at each stage of program development and to information needs, which may call for a range of methods over time, including targeted data collection that may not always include outcomes measurement.

Today we see considerable interest in impact analyses, including randomized controlled trials. No doubt these are valuable tools and have their place. But we wish to emphasize that they represent only some of the methods that can and should be applied, depending on the questions that need to be answered. They are not intrinsically better than other methods, except in those circumstances where they are most appropriate and feasible. An overarching focus on these methods to the exclusion of others will deprive decision makers of valuable insights about ways to improve program effectiveness and efficiency, and, when appropriate, whether to increase or diminish program funding.

Most federal evaluations need to go beyond estimating aggregate impacts to also addressing "what works for whom, and under what circumstances." If the data from evaluation studies are to be of most use in guiding evidence-based decision making, they need to be able to support conclusions about how program impacts vary across subgroups of those affected by the programs and also conclusions about the contexts in which the specific program activities are most effective.

Numerous examples are available of evaluations that have enhanced the effectiveness and impact of programs but that were conducted early in the program's life. One that comes to mind is the evaluation conducted by the Institute of Medicine during the first five year of the PEPFAR program. This was done at the request of Congress, embedded in the original authorizing statute. It provided feedback on implementation issues that was available to decision makers at the time of the program's first reauthorization. It is fair to speculate that this early feedback contributed to the impact of that program from that time forward, and in many ways was as or more impactful than studies performed in later years.

Other studies can affect programs and their impacts when performed several years into their implementation. One example is a series of evaluations and audits that identified serious problems of service quality, cost, and fraud within Medicare's home health program. Based on those studies, the Congress reformed the structure of the program, leading to savings of some forty plus billions of dollars and the abandonment of participation in the program by many high risk providers. These impacts were verified by independent reviews conducted by the Government Accountability Office. It is especially noteworthy that it was not a single impact study that led to these reforms, but rather by a body of work spanning several years.

Many other evaluation studies that lead to improved program impact and efficiency are documented on the websites of various Federal Offices of Inspectors General. They illustrate the value of using a body of work and mixed methods to assess both implementation and effectiveness of federal programs.

Evaluation Capacity in Government Settings
AEA believes that all federal entities should have the ability and should be encouraged (and in some cases, required) to evaluate programs. However, each agency or department should develop structures and plans for their evaluation functions that are best suited to their missions, organizational structures, stakeholders, environments, timing of and need for evidence in decision making, and available resources.

Because evaluation should serve as an essential core function in good governance, agencies should be required to apply the findings and conclusions of evaluations to program design, management, reform, expansion, or termination—ensuring that policy formulation will be more open, consultative, and evidence-informed. Agencies should, to the extent practical, conduct impact evaluations on pilot programs before attempting to expand or replicate them.

A framework for the planning and conduct of evaluations should also include:
 a. A public evaluation policy statement
 b. A sound procedure for establishing annual and multi-year evaluation agendas and timetables
 c. Consultation with appropriate congressional committees, OMB, and other external program stakeholders on their information needs
 d. A dissemination plan, preferably with public access
 e. Resources needed to support evaluation, and
 f. Plans regarding how the findings and conclusions of evaluations shall be considered in subsequent program design, program management, and decisions regarding program reform, expansion, or termination.

The organizational structure of evaluation efforts is also important. Thus, it is vital to ensure an appropriate mixture of independence and collaboration between the evaluators and program offices with regard to evaluation design, conduct, and reporting. Consultation is needed to ensure relevance, but independence is needed to ensure impartiality. Depending on the unique organizational structure of each agency, an independent central evaluation office could be responsible for: developing and promoting program evaluation expertise throughout an agency; planning, conducting or procuring evaluation studies; and ensuring appropriate follow-up of evaluation findings and recommendations.

Adequate staffing of evaluation units and support for professional development is also necessary if the Commission's work is to achieve the kind of benefits foreseen by Congress. To ensure that decision makers use the evidence produced in evaluation studies, agencies should invest in training those staff responsible for program design, implementation, and management regarding the proper conduct of evaluation and the use of findings in program decision making.

Summary

1. Government decision makers must have appropriate credible evidence to make informed decisions regarding the structure and operations of federal agencies and policies, and to maximize their effectiveness and efficiency.

2. For key decision points within programs, federal entities (including Congress, executive branch agencies, and OMB), should identify important evaluation questions. Evaluators, in consultation with program officials, should select methods best suited to answer those questions.

3. All federal entities should have the authority and resources to conduct evaluations, and should be encouraged (and in some cases, required) to evaluate various programs. However, each agency or department should develop structures and plans for those evaluation functions best suited to their mission, organizational structure, stakeholders, environment, and timing of and need for evidence in decision making.

4. Recognizing the importance of assessing program effectiveness, the opportunity to capitalize on early successes or to make mid-course corrections is also critical. So it is essential also to conduct ongoing formative evaluation throughout the program's life cycle.

5. The proposed Evidence Clearinghouse should serve as a repository for the evidence contained in evaluation reports and as an archive for the collection, dissemination, and preservation of knowledge and lessons learned from evaluation studies.

H1_2016_08
October 21, 2016 Hearing
The Education Trust
Presenter: Tiffany Jones

The Education Trust

**Closing the gaps in opportunity and
achievement, pre-k through college.**

Commission on Evidence-Based Policymaking – Public Hearing
Friday, October 21, 2016

Comments submitted by:
Tiffany Jones, Director of Higher Education Policy
The Education Trust

Abstract: The availability of high-quality, robust data systems is essential to helping the
public understand how students are faring at particular institutions, identifying equity
gaps, and better incentivizing improvement and success. Having better information on the
college participation and outcomes of all students also helps ensure that students can make
the best postsecondary decisions for themselves, with the billions of dollars that the federal
government annually invests in student aid. We believe that the most efficient and effective
way to gather complete and more honest data is through a (modified) unit record system,
and we support both an effort to eliminate the current student unit record ban and an
effort to expand and improve the current data collections, including, for example, data on
part-time students and transfers, and making Pell status transparent in the collections.

Oral and Written Statement:

Thank you for the opportunity to speak. My name is Tiffany Jones and I am the Director of
Higher Education Policy at The Education Trust. Ed Trust is committed to advancing
educational opportunities for all students, but especially low-income students and students
of color. We aim to advance equity in higher education by encouraging policymakers and
the public to hold campuses accountable for student outcomes and supporting
improvement at campuses committed to serving low-income students and students of
color.

Since the original Higher Education Act (HEA) was passed in 1965, the U.S. has made
substantial progress in college access. College-going rates have climbed for students from
all economic and racial groups. Yet despite this progress, low-income students today enroll
in postsecondary education at rates lower than high-income students did in the mid-1970s.
In every category of postsecondary education, low-income students and students of color
are less likely than others to earn the degrees that they want and need, and far more likely
to end up with debt and no degree.

Before disaggregation of data was required in K-12, we knew anecdotally that schools were
not educating all groups of students well. But we did not know just how significant the
inequities were, and we didn't know which schools were making progress and which
weren't.

That, unfortunately, is where we still are in higher education — especially in regard to low-income students. We have some limited research on, for example, overall Pell graduation rates, but we don't currently know which institutions are serving these students well and which aren't. Pell graduation rate data will be incorporated into IPEDS in the coming years, but to date these data have not been included in annual IPEDS data collections. IPEDS also doesn't include data on part-time students or students who don't start in the fall or students who transfer in from another college.

If we have learned anything from past experience, it is this: that students who aren't measured don't count. If you want these students to count, and I know you do, you need to make the same shift to demanding better data that you have made in K-12.

We believe that the most efficient and effective way to have complete and more honest data is through a (modified) unit record system. The current ban on a federal student unit record system makes it impossible for federal policymakers to get a comprehensive picture of how students are moving through postsecondary education and attaining degrees and certificates. The commission should recommend the overturn of the unit record ban and the ban on a federal database of WIOA data, so that we can have a nationwide, inclusive data set to show how people are moving through a variety of education pathways.

Creating a student unit record system can begin by leveraging existing resources from the U.S. Department of Education (which houses the National Student Loan Data System and Integrated Postsecondary Education Data System), Social Security Administration, the Department of Defense and Department of Veterans Affairs, among others, to create a more complete picture of the higher education landscape. These sources provide valuable data on important subgroups of students who are often overlooked, including Pell Grant recipients, student loan borrowers, and student veterans. If linked, these data would produce valuable information about enrollment and completion rates, and post-college employment and earnings.

We also support an effort to expand and improve the current data collections, including, for example, data on part-time students and transfers, and making Pell status transparent in the collections.

Thank you for having this hearing and taking an important and critical step toward advancing the quality and availability of higher education data — specifically, a step that ensures better data that can be used to empower students, families, the public, advocates, and campuses as we aim to increase higher education equity and student success.

I look forward to answering any questions.

H1_2016_10
October 21, 2016 Hearing
National Campaign to Prevent Teen and
Unplanned Pregnancy
Presenter: Kelleen Kaye

October 14, 2016

Dear Chair Katharine G. Abraham, Co-chair Ron Haskins, and members of the Commission:

On behalf of The National Campaign to Prevent Teen and Unplanned Pregnancy, thank you for the opportunity to submit a statement for the record for the Commission on Evidence-Based Policymaking (CEP) meeting to be held on October 21, 2016. The National Campaign, a research-based, nonpartisan, nonprofit organization was founded in 1996. We work to improve the lives and future prospects of children and families by ensuring that all children are born into families committed to and ready for the demanding task of raising the next generation by reducing unplanned pregnancy among teens and young adults. The National Campaign works towards three ultimate outcomes:

- Reduce the rate of teen pregnancy by 50% by 2026.
- Reduce the rate of unplanned pregnancy among women age 18-29 by 25% by 2026.
- Reduce the disparities in teen pregnancy and unplanned pregnancy rates among racial/ethnic and socioeconomic groups by 50% by 2026.

Ensuring that young people have access to high quality, evidence-based teen pregnancy prevention education is one critical element in helping more young people delay pregnancy and parenting.

Given our long-standing commitment to research, evidence and evaluation, we applaud the establishment of the Commission and appreciate the important issues it is tackling. In this statement, we offer feedback about several of the duties the Commission is tasked with, along with information about two tiered evidence-based programs—the Personal Responsibility Education Program (PREP) and the Teen Pregnancy Prevention (TPP) Program—which we hope will be helpful as the Commission goes about its important work.

The Commission poses several important questions with respect to data infrastructure and access, including a request for examples of best practices related to linking local, state and federal data. Not surprisingly, this type of endeavor raises many technological, ethical, and legal challenges, particularly as they relate to the balance between data access and privacy. One example that may be helpful to consider is the Longitudinal-Employer Household Dynamics (LEHD) program. We highlight this program for its ability to successfully navigate challenges associated with partnership formation, privacy protection, and data access while producing data that have greatly impacted policy.

Similarly, the Commission poses several questions related to the potential benefits and challenges of developing a clearinghouse for administrative and survey data. While The Campaign strongly supports greater access to administrative and survey data, and a

clearinghouse would be beneficial in theory, we believe such an effort would likely fall short of its goals and would be difficult to maintain. It is particularly difficult to imagine a single clearinghouse that gathered data and evidence across all policy domains in a way that adequately captured the complexities of these data and the programs they reflect. Rather, we believe those resources would be better committed to helping agencies maintain and enhance the data access they already have in place. In our experience, as these agencies try to meet growing data collection costs with fixed or even diminishing budgets, the availability of policy relevant data has been shrinking in critical ways. Key questions have been cut from surveys and online access to data has been curtailed. This is particularly true as it pertains to tabulating results for states or localities. For example, one can no longer use the online vital statistics data to look at key policy questions like variation in Medicaid or WIC participation at the state level. It is also the case that some particularly rich data, such as the Medicaid Max files, are not available as de-identified files, thus making them difficult to obtain and underutilized. There are likely similar limitations in other policy domains as well. We believe that with relatively modest investments and vocal champions, data access could be greatly expanded.

We also would like to comment on the Commission's interest in how data and findings from evaluations can best be used to improve policies and programs. We offer two examples of tiered evidence grant making from the US Department of Health and Human Services (HHS) that use evaluation results to continually improve those programs.

The TPP Program and PREP, like the Maternal, Infant and Early Childhood Home Visiting program, have been recognized as pioneering examples of tiered evidence-based policymaking,[i] and represent an important contribution to building a body of evidence of what works. They include high quality implementation, evaluation, innovation, and learning from results. The majority of funding from the TPP Program and PREP goes toward replicating program models that have been demonstrated to change behavior using well recognized high standards of evidence. A smaller portion of funding is reserved for research and demonstration projects to develop, replicate, refine, and test additional models and innovative strategies. This ensures that the menu of effective approaches to reducing teen pregnancy will continue to grow and be refined.

TPP Program and PREP grantees can choose from a list of effective models that have been identified through HHS' ongoing systematic review of the teen pregnancy prevention research literature. Since 2009, HHS has sponsored this review of the literature to help identify models with evidence of effectiveness in reducing teen pregnancy, sexually transmitted infections (STIs), and associated sexual risk behaviors. The review, conducted by Mathematica Policy Research, looked at hundreds of evaluations and initially identified 28 models that met Tier 1 criteria. That is, they must have been evaluated using a randomized controlled trial or quasi-experimental design, demonstrate changes in behavior (not just knowledge or behavioral intent), and results must be published in a peer-reviewed journal. The evidence review is updated periodically to capture the latest evaluation studies, and now includes 44 models.[ii] The wide range of models on the HHS list of evidence-based programs gives grantees the flexibility to choose an effective approach that reflects their needs, population, and values, recognizing that what people in New York City may choose for high school age teens might be different from what people in Mississippi choose for middle school youth.

The TPP Program is a discretionary program administered by the Office of Adolescent Health (OAH) that was originally funded in FY 2010 at $110 million. It supported an initial cohort of 102 grants for a five-year period. Funded at $101 million for FY 2016, the TPP Program currently supports 84 competitive grants to a broad range of organizations and agencies serving youth in 39 states and the Marshall Islands. The grantees focus intensely on communities with the highest teen birth rates and the most at-risk youth. These five-year grants were awarded in FY 2015 and are contingent on continued appropriations. As noted above, approximately 75% of the grant funds are used to replicate program models that have already been shown through careful evaluation to change teen behavior (Tier 1), and approximately 25% of the funds support research and demonstration projects to develop, replicate, refine, and test additional models and innovative strategies to prevent teen pregnancy (Tier 2).

PREP, established in FY 2010, continues to be funded at $75 million in mandatory funding annually through FY 2017. Administered by the Administration on Children and Families (ACF), PREP supports states, communities, and tribes to educate adolescents on both abstinence and contraception to prevent pregnancy and STIs, and on other adulthood preparation topics such as healthy relationships, communication with parents, and financial literacy. PREP focuses on youth at greatest risk of teen pregnancy and geographic areas with high teen birth rates. For example, 34% of grantees targeted youth in foster care and 74% target youth in high need areas.[iii] Most of the PREP funding ($58 million) supports grants to states, territories, and tribes and emphasizes the use of evidence-based programs. Indeed, more than 95% of youth served by the state grants received one of the evidence-based programs from the HHS list referenced above.[iv] An additional $10 million supports competitive grants to public and private entities to develop, replicate, refine, and evaluate innovative strategies to reduce teen pregnancy and repeat pregnancies among youth up to age 21. These grants are subject to rigorous evaluation and reflect a "Tier 2" approach that supports innovation, fills gaps in existing programs for underserved populations, and expands knowledge about what works.

Both programs have invested heavily in the highest standards of evaluation and learning, as well as in innovation. OAH funded 41 rigorous evaluations during the first round of TPP Program grants that ran from 2010-2014.[v] The recently released findings—90% of which were from randomized control trials—indicate that four of the Tier 1 programs were found effective in changing behavior in additional settings and new populations. Among the Tier 2 grantees, 8 new, innovative models were found to be effective. Overall, these evaluations help build a body of evidence about where, when, and with whom specific models are most effective, and have expanded the menu of effective program models from which communities can choose. The results, along with implementation lessons, also help guide the second round of TPP Program grantees, and the many communities that look to the HHS list of evidence-based programs for guidance on what approaches will work best for them. Many of these findings and valuable implementation lessons were recently published in a special supplement of the *American Journal of Public Health*.[vi] PREP grantees have also been subjected to rigorous evaluations through several different federally sponsored studies, and several studies have already been added to the HHS evidence review.

The commitment to evidence-based investments and innovation in the area of teen pregnancy prevention has been pivotal in changing the landscape. Before these two programs began, there

were no federal investments dedicated to evidence-based teen pregnancy prevention programs; research in this area had primarily come from private investments, with few resources available to replicate or further evaluate the existing models.

The National Campaign also offers PREP and the TPP program as two examples where evaluation—specifically randomized control trials and quasi-experimental designs— have been successfully incorporated into the program designs. These are two of the few government programs that use evidence and evaluation criteria throughout the grant life cycle.[vii] In fact, only about $1 out of every $100 spent on federal programs is backed by any evidence that the money is being spent wisely.

We believe rigorous evaluations have been successfully implemented for a few reasons. Importantly, the legislation for both programs specifies that some portion of funds should be used for evaluation. Program requirements also signify that evaluations are a priority. For instance, PREP grantees must participate in a federally-led evaluation, if chosen, and the "Tier 2" innovation grantees are required to conduct their own rigorous evaluations, unless selected to be part of a federally-led evaluation. All TPP Program grantees are required to conduct some program evaluation, with a subset selected for rigorous impact evaluation.[viii] In addition, there are several federally-led evaluation studies that include large, multi-state, rigorous evaluations conducted under contract to OAH.[ix] Besides rigorous evaluations, mandatory reporting of performance measures is another way that OAH and ACF ensure grant projects are making sufficient progress toward their stated missions and that there is continuous quality improvement.

Of course, providing support for grantees is another vital component to ensuring evaluations are successful. From review of initial evaluation designs to preparation of the final evaluation reports, TPP Program and PREP grantees received ongoing evaluation training and technical assistance support to ensure rigorous methods and reporting.[x, xi] In addition, it is essential to have a commitment to evaluation and learning from program leadership and adequate federal staff capacity to carry out that commitment. Leadership at OAH and at ACF demonstrated such commitment, built staff capacity, and worked closely with evaluation experts at the ACF Office of Planning, Research and Evaluation (OPRE) and the Office of the Assistant Secretary for Planning and Evaluation (ASPE).

In closing, thank you for considering our input for the Commission for Evidence-Based Policymaking. If you have any questions or need additional information, please contact me at 202-478-8512 or kkaye@thenc.org.

Sincerely,

Kelleen Kaye
Vice President, Research and
Evaluation

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[i] Results for America. (2015). *Invest in What Works Fact Sheet: Federal Evidence-Based Innovation Programs.* Washington, DC: Author. Retrieved October 12, 2016 from http://results4america.org/policy-hub/invest-works-

fact-sheet-federal-evidence-based-innovation-programs/. Also, Haskins, R. (2014). *Show Me The Evidence*. Washington, DC: Brookings Institution Press.

ii Lugo-Gil, J., Lee, A., Vohra, D., Adamek, K., Lacoe, J., & Goesling, B. (2016). *Updated findings from the HHS Teen Pregnancy Prevention Evidence Review: July 2014 through August 2015*. Washington, DC: Mathematica Policy Research. Retrieved October 12, 2016 from http://tppevidencereview.aspe.hhs.gov/pdfs/Summary_of_findings_2015.pdf.

iii Administration for Children and Families/Family and Youth Services Bureau. (2015). *Adolescent Pregnancy Prevention Program Fact Sheet.* Washington, DC. Author. Retrieved October 12, 2016 from www.acf.hhs.gov/programs/fysb/resource/app-fact-sheet.

iv Administration for Children and Families/Family and Youth Services Bureau. (2015). *Personal Responsibility Education Program: How States Planned and Implemented Adolescent Pregnancy Prevention Programs: State PREP Performance Measures of Structure, Cost, and Support for Implementation.* Washington, DC: Author. Retrieved October 10, 2016 from www.acf.hhs.gov/sites/default/files/fysb/prep_pm_brief_20151216.pdf.

v U.S. Department of Health and Human Services, Office of Adolescent Health. (2016). Results from the first round of TPP grantees. Retrieved October 12, 2016 from www.hhs.gov/ash/oah/oah-initiatives/tpp_program/cohorts-fy-2010-2014.html.

vi Morabia, A. (Ed.). (2016). Building the Evidence to Prevent Adolescent Pregnancy: Office of Adolescent Health Impact Studies (2010-2015) [Special issue]. *American Journal of Public Health, 106*(S1). Retrieved October 12, 2016 from http://ajph.aphapublications.org/toc/ajph/106/S1.

vii A recent GAO report includes TPP in its review of five tiered evidence grant programs, noting evidence is used throughout, including for assessing the evidence base and identifying evidence-based approaches, implementing evidence-based approaches with fidelity, conducting rigorous independent evaluations, and disseminating evaluation results.

viii U.S. Department of Health and Human Services/Office of Adolescent Health. (2016). TPP Evaluation and Performance Measurement. Retrieved October 10, 2016 from http://www.hhs.gov/ash/oah/oah-initiatives/evaluation/grantee-led-evaluation/grantees-2010-2014.html.

ix http://www.hhs.gov/ash/oah/oah-initiatives/evaluation/federal-led-evaluation/index.html

x http://www.hhs.gov/ash/oah/oah-initiatives/evaluation/ta.html.

xi Goerlich Zief, S., Knab, J., & Cole, RP. (2016) A Framework for Evaluation Technical Assistance (2016). *American Journal of Public Health, 106*(S1): S22–S24. Retrieved October 10, 2016 from http://ajph.aphapublications.org/doi/full/10.2105/AJPH.2016.303365.

H1_2016_16
October 21, 2016 Hearing
Association of Public and Land Grant Universities
Presenter: Christine Keller

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Commission on Evidence-Based Policymaking (CEP)
First Public Hearing: Friday, October 21, 2016

Comments Submitted by

Christine M Keller, PhD
Association of Public & Land-grant Universities (APLU)
Vice President, Research and Policy Analysis
ckeller@aplu.org

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Abstract: *The most significant barrier for evidence-based policymaking and decisions within higher education is the ban within the Higher Education Opportunity Act of 2008 that prohibits the Department of Education from collecting student-level data for postsecondary students.   The lack of national student-level data prevents the Department from calculating comprehensive progress and completion outcomes for students as they move across different higher education institutions, especially as they cross state boundaries. It also prevents the linking of postsecondary data with federal data from other agencies that would allow better evidence of outcomes after college (e.g., earnings, employment) as well as outcomes for students in key federally-funded programs (e.g., Pell grants, veterans benefits). The result is that students and families are left in the dark as they make the critical decision of which college or university is the right fit; policymakers struggle to appropriately hold accountable institutions receiving taxpayer dollars; and institutions lack the information they need to assess their performance and improve.*

Oral and Written Statement
Co-chairs Abraham and Haskins and distinguished members of the Commission, thank you for the opportunity to submit comments for your consideration during this hearing. My name is Christine Keller and I am the Vice President of Research and Policy Analysis at the Association of Public and Land-grant Universities (APLU). APLU is a research, policy, and advocacy organization dedicated to strengthening and advancing the work of public universities in North America.

A top priority for APLU is to foster the widespread use of data and evidence to support decision-making - on university campuses and as the basis for sound and effective federal policy. APLU believes the most significant barrier for evidence-based policymaking and decisions within higher education is the ban that prohibits the Department of Education from collecting individual-level data for postsecondary students (Higher Education Opportunity Act of 2008). Lifting the ban in order to create a limited federal postsecondary student-level data system would produce more accurate details of student enrollment patterns, progression, completion, and post-collegiate outcomes. Such a system would assist with national priorities such as providing students and their families with more complete and accurate information when selecting a college. And better ensure that policymakers can appropriately allocate public resources and evaluate program effectiveness.

A student-level postsecondary data system would address one of the most significant shortfalls of the current institution-level data collections within the Department of Education – the inability to accurately report the

progress and completion of all students across multiple institutions and state boundaries. The current federal graduation rate only reports the completion of full-time students who start and finish at their first institution. Students who start their studies part-time or transfer institutions are not reported in the federal rate. Data from the National Student Clearinghouse demonstrate that these students comprise an increasingly large proportion of today's students. Sixty-four (64) percent of bachelor's degree recipients from public universities attend more than one institution before graduation and more than 60 percent of community college students attend part-time. Yet these students are missing from the federal graduation rate.

The Department of Education, to its credit, has made multiple attempts to address these shortcoming within the constraints of an institutional level collection. However, the information provided remains inadequate for consumers and policymakers, adds reporting burden for institutions, and, the latest attempt was judged too unreliable by the Department of Education to release the data publicly after the first year of collection. A student-level data collection would simplify the creation of progress and outcomes measures as well as increase reliability and consistency of the metrics across institutions.

A second significant shortfall of the current postsecondary data is the inability to create linkages between postsecondary education data and other federal data systems. Linking with other federal data systems would harness the data already collected through other agencies to provide key information such as employment and earnings after college for all students.   Progress and completion rates could be reliably and accurately calculated for student participating in federal programs such as Pell grants or GI Benefits. Combining information across federal agencies would streamline data collection, minimize duplicate reporting by institutions, and reduce the chance of errors in the resulting metrics.

Any student-level data system must include a robust set of protections and protocols to safeguard student data from unauthorized use or disclosures and to secure its collection and storage. Policies and procedures to protect data must be transparent and utilize evolving best practices for data security to address real and legitimate concerns about privacy and security, but privacy and security should not be used as an excuse for blocking transparency and access to more complete data.

Following are two specific examples from APLU members that illustrate why lifting the ban to create a system with more comprehensive and accurate data is a top priority for our association.

Example 1: Student Achievement Measure
As I mentioned earlier, the current federal graduation rate only includes first-time, full-time students who start and finish at their first institution. To help fill the data gaps in the federal system, the higher education community created **the Student Achievement Measure** (www.studentachievementmeasure.org) or SAM. SAM is a voluntary initiative that allows institutions to report the progress and completion of full-time, part-time, and transfer students. Over 600 colleges and universities from all 50 states and the District of Columbia are participating in SAM and reporting the outcomes of 600,000 more students than the federal government's measure.

One of the SAM participants is the University of North Texas. The federal graduation rate for UNT shows that just under half of first-time, full-time student who started in Fall 2009 graduated within 6 years. With only the information provided by the federal graduation rate, it appears that the other half of the students who started at the University of North Texas failed. However, by using the SAM methodology, UNT is able to show that another 13% of students graduated from another institution and another 14% are still enrolled pursuing their degree, for a total of 76% students who have graduated or are still enrolled.

SAM also reports the outcomes for the nearly 3,000 students who started at the University of North Texas as transfer students in Fall 2009 and are missing from the federal **rate** – 80% have graduated or are still enrolled after 6 years. All totaled, SAM includes another 3,000 of the University of North Texas's students who are not included in federal graduation rate.

SAM provides a powerful model of the type of information that would be available if the ban on collection of student-level data were lifted. However, SAM is not a substitute for a federal student-level data system. SAM is voluntary and does not include all postsecondary institutions. Nor is SAM the official data included in the U.S. Department of Education's College Scorecard, the U.S. Department of Veterans Affairs' college comparison tool, or other consumer information tools. A more complete federal solution is still needed.

Example #2: University of Texas System
A second example comes from the University of Texas System. The UT System has demonstrated the usefulness of student-level data as part of their consumer information tool – seekUT (http://utsystem.edu/seekut/). By combining student-level data and the state workforce data, the UT System is able to present information such as the average cumulative student loan debt and median earnings at one, five, and ten years post-graduation for students graduating from specific programs at the UT institutions.

However, as useful and powerful as having earnings data at the state level has been, there were key limitations that hindered the UT System's ability to answer critical questions. Without a federal postsecondary data solution they were limited to data for those graduates that remained in Texas after graduation and unable to account for the earnings of graduates that move out of state. UT System administrators recognized that they needed national data across all states to evaluate and improve academic programs. And provide students with more comprehensive employment and earnings information to show a realistic picture of earnings after graduation. This information would help students make more informed decisions about their choice of majors and appropriate amounts of debt.

In fact, the UT System felt that national employment and earnings data would be of such high value that they recently finalized an agreement with the US Census Bureau to provide national post-college outcomes for UT graduates through a pilot research project.   The Census-UT System collaboration is an important demonstration of how higher education and federal agencies can break down silos and work together. Imagine how valuable would it be if all colleges and universities and state systems could have access to similar information to support institutional evaluation and improvement and student decision-making – without each entity negotiating a separate agreement?   A national student-level data system could help all institutions more readily reach that goal.

In sum, lifting the ban on the collection of student-level postsecondary data would provide access to more comprehensive, meaningful data and allow for the better alignment and integration with other federal data systems. The results would strengthen the federal government's ability to provide essential information on higher education – for student and families to make more informed decisions about where to attend college; for policymakers to determine allocations of public resources and evaluate program effectiveness; and for college leaders to develop institutional policies and practices that support successful outcomes for all students.

As the Commission continues to develop a strategy for increasing the availability, alignment, and use of high quality data to inform policy and decision-making, we encourage your consideration of the acute need for more accurate and complete postsecondary data for all users.

APLU is a research, policy, and advocacy organization dedicated to strengthening and advancing the work of public universities in the U.S., Canada, and Mexico. With a membership of 236 public research universities, land-grant institutions, state university systems, and affiliated organizations, APLU's agenda is built on the three pillars of increasing degree completion and academic success, advancing scientific research, and expanding engagement. Annually, its 194 U.S. member campuses enroll 3.9 million undergraduates and 1.2 million graduate students, award 1 million degrees, employ 1 million faculty and staff, and conduct $40.2 billion in university-based research.

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H1_2016_12
October 21, 2016 Hearing
American Principles Project
Presenter: Emmett McGroarty

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American Principles Project

Abstract: We urge the Commission to resist calls to repeal the statutory prohibition on the development, implementation, or maintenance of a federal student unit-record system. Such a system would curtail liberty interests of the individual, would invite the collection and use of ever-more data, and would fundamentally alter the relationship between the individual and government in a way that is incompatible with our constitutional republic.

Statement by Emmett J. McGroarty, JD
Before the Commission on Evidence-Based Policymaking

The Commission on Evidence-Based Policymaking was created to pursue a laudable goal: To improve analysis of the effectiveness of federal programs.[1] But when such a pursuit is used to justify collecting, conglomerating, and tracking massive amounts of Americans' personal data, as is certainly true in the realm of education, it's necessary to examine the dangers and the tradeoffs. American Principles Project (APP) believes that such activities suppress the liberties of the people and pervert the relationship between the people and government. We urge the Commission to reject calls to establish a federal student unit-record system and to engage in such Orwellian activity.

Section 134 of the Higher Education Act wisely prohibits the development, implementation, or maintenance of a federal student unit-record system (one that would allow the government to collect personally identifiable information (PII) on individual higher-education students and link education data to workforce data).[2] Recently, though, an orchestrated demand for repeal of this prohibition has been swelling.[3]

According to well-funded organizations[4] with a vested interest in accessing that data for their own purposes, the federal government suffers from data-deprivation. Think how much more efficiently our nation could operate, and how much more the government could help people run their own lives, if it maintained a centralized repository tracking almost every conceivable data point about every citizen – where he attended school, what courses he took, what grades he earned, what extracurricular record (good or bad) he compiled, what jobs he applied for, what jobs he got, what salary he made, whether he was promoted, what salary he earned in his new position, whether he lost his job and why, whether he joined the military, what sort of

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[1] David B. Muhlhausen, "A Commission for Evidence-Based Policymaking: A Step in the Right Direction," Heritage.org (March 9, 2015), *available at* http://www.heritage.org/research/reports/2015/03/a-commission-on-evidence-based-policymaking-a-step-in-the-right-direction.

[2] 20 U.S.C. sec. 1001 *et seq., available at* http://naicu.edu/docLib/20081030_HEA101-studentunit.pdf.

[3] *See* Libby Nelson, "Idea Whose Time Has Come?" *Inside Higher Education* (May 13, 2013), *available at* https://www.insidehighered.com/news/2013/05/13/political-winds-shift-federal-unit-records-database-how-much.

[4] Kelly Field, "Rescind Ban on Federal Unit-Record System to Track Students, Report Says," The Chronicle of Higher Education (March 11, 2014), *available at* http://www.chronicle.com/article/Rescind-Ban-on-Federal/145279/.

military record he established, whether he was arrested and for what, whether he went to jail, and on and on *ad infinitum.*

This is not a description of a free and open United States of America. This is a description of a totalitarian society that keeps tabs on its own citizens – for their own good, of course. It's also a description of what would inevitably happen with the establishment of a student unit-record system, all in the name of "better consumer information," "accountability," and "transparency."

What's wrong with a federal unit-tracking system?

First, it would compile students' personally identifiable information (PII) without their consent – or even their knowledge that their data is being collected and disclosed. It's one thing to collect data from a student who voluntarily (which of course presumes actual notice of the program) participates in a government program and understands that participation will expose his PII to program administrators; it's quite another to forcibly suck every individual into a data-collection system simply because he enrolled in an institution of higher education. Telling that student that he must hand over his personal data to promote a greater good as defined by bureaucrats and lobbyists – or even worse, just dragooning him without telling him anything – is simply un-American.

Second, the purposes of the proposed system would be so open-ended that the repository is certain to be expanded over time to centralize data far beyond collegiate and employment data. In the creative bureaucratic mind, literally everything can be linked to education. So why stop with employment data? Why not see how one's education affects his participation in the military? Or his health? Or his criminality? Or his housing patterns? Or the number of children he has? Or whether he purchases a gun? Or his political activity? Inquiring bureaucrats want to know, and every question can be justified by citing "better consumer information."

And will this dossier created on every citizen become permanent? Presumably so. If the goal of providing maximum consumer information is to be achieved, both historical and current data – constantly updated and expanded – must be compiled and preserved.

Perhaps this expansion won't happen. Perhaps the federal government, in stark contrast to its behavior over the last 100 years, will stay within its boundaries. But reality-based Americans know the government will push the envelope as far as it possibly can, as it always does. And they know that giving that government access to such a treasure trove of data is dangerous to privacy and to individual liberty.

Third, the idea that this massive repository of PII will be protected against unauthorized access and data breaches is quite simply delusional. Less than a year ago, a hearing of the House Committee on Government Oversight and Reform[5] revealed the shocking lack of student-data

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[5] U.S. Department of Education: Information Security Review" (Nov. 17, 2015), *available at* https://oversight.house.gov/hearing/u-s-department-of-education-information-security-review/.

security throughout the U.S. Department of Education (USED). The problems encompass both lax controls over the people allowed access to sensitive data, as well as outdated technology and inadequate security to prevent unauthorized access.

USED's system contains over 139 million Social Security numbers (largely through its office of Financial Student Aid), along with sensitive borrower information about students and families contained in the National Student Loan Database. The findings of the Office of the Inspector General (OIG) and the General Accounting Office were disturbing:

- Of the 97,000 account/users with access to this information (government employees and contractors), fewer than 20 percent have undergone a background check to receive a security clearance.
- The security mechanisms protecting that data are grossly inadequate. As one OIG witness testified, "During our testing . . . OIG testers were able to gain full access to the Department's network and our access went undetected by Dell [the vendor] and the Department's Office of the Chief Information Officer."
- USED ignored repeated warnings from OIG that its information systems are vulnerable to security threats.

That the federal government should now consider ballooning the sensitive data contained in these insecure systems is at best misguided and reckless.

Even if the data systems were secure, the Obama administration's gutting of the Family Educational Rights and Privacy Act (FERPA) means that government education officials (federal, state, and local) now have enormous leeway to disclose PII on individual students without their consent. Pursuant to the recent FERPA regulations, these officials may share private PII with other government agencies, nonprofit entities, corporations, researchers, and literally anyone on the planet as long as the disclosure can be characterized as an audit or evaluation of a (broadly defined) "education program."[6]

Will the new conglomeration of student data be fair game for disclosure under these regulations? The danger is too real to dismiss.

The philosophical problem with a federal student unit-record system is that it treats free-born American citizens as objects of research and study. It assumes that the goal of benefitting others in society, in vague and theoretical ways, authorizes the powerful federal government to collect and disseminate millions of data points on individuals – without their consent. This fundamentally changes the relationship between the individual and government. Collecting and holding massive amounts of data about an individual has an intimidating effect on the individual—even if the data is never used. This is even more so the case when the collector has

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[6] Letter from American Association of Collegiate Registrars and Admissions Officers to Regina Miles of U.S. Dept. of Education (May 23, 2011), *available at* https://aacrao-web.s3.amazonaws.com/migrated/FERPA-AACRAO-Comments.sflb.ashx_520501ad842930.77008351.ashx.

the force of the law behind it. Our republic rests on the idea that the citizen will direct government. That cannot happen where government sits in a position of intimidation over the individual.

Submitted by:

Emmett J. McGroarty, Esq.
Senior Fellow
American Principles Project

H1_2016_01
October 21, 2016 Hearing
Results for America
Presenter: David Medina

September 9, 2016

Dr. Katharine G. Abraham, Chair
Mr. Ron Haskins, Co-Chair
Evidence-Based Policymaking Commission
U.S. Census Bureau
4600 Silver Hill Road
Suitland, MD 20746

Dear Chairwoman Abraham and Co-Chairman Haskins,

We are writing to encourage you to consider including the attached policy recommendations in your final report to Congress and the Administration.

We believe that the Commission can help invest taxpayer dollars in what works by assisting policymakers at all levels of government in:

- Building evidence about the practices, policies and programs that will achieve the most effective and efficient results so that policymakers can make better decisions;
- Investing limited taxpayer dollars in practices, policies and programs that use data, evidence and evaluation to demonstrate they work; and
- Directing funds away from practices, policies, and programs that consistently fail to achieve measurable outcomes.

Although the Evidence-Based Policymaking Commission Act of 2016 directs the Commission to study and report on several important topics including data privacy and data sharing, our attached policy proposals focus on the provision that directs the Commission to "make recommendations on how best to incorporate outcomes measurement, institutionalize randomized controlled trials, and rigorous impact analysis into program design."

We thank you in advance for your consideration of our recommendations.

Sincerely,

Actionable Intelligence for Social Policy (AISP)
America Forward
Center for Employment Opportunities
Center for Research and Reform in Education, Johns Hopkins University
KIPP
REDF
Results for America
Sorenson Center for Impact
Success for All Foundation
Sunlight Foundation

cc: Members of the Evidence-Based Policymaking Commission

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INVEST IN WHAT WORKS COALITION RECOMMENDATIONS

Data Collection

- **Federal Data Infrastructure**: The Commission should consider recommending that Congress and the Administration provide sufficient funding to help the U.S. Census Bureau accelerate the process of acquiring key administrative data-sets from local, state, and federal agencies, and strengthen its infrastructure for processing, standardizing, linking, and making data available to other government agencies and independent researchers via data use agreements with strong privacy protections. As part of this effort, the Census Bureau should develop an inventory of data-sets at the local, state, and federal levels and make this inventory accessible to government agencies and independent researchers.

- **Federal Data Inventories**: The Commission should consider recommending that Congress and the Administration codify into law what is already required by the May 2013 Executive Order by passing the OPEN Government Data Act. This legislation would mandate that every federal agency create an enterprise data inventory of all data sets held by the agency and make these lists public in machine-readable formats with strong privacy protections.

- **Federal Data Information Technology:** The Commission should consider recommending that Congress and the Administration provide sufficient funding to allow every federal agency to update and modernize its IT infrastructure that supports data collection, analysis, sharing, and usage so that data can be appropriately structured, protected, analyzed and disclosed in line with the updated information policy of the United States. A 2016 report by the U.S. General Accountability Office highlighted the urgent need for the U.S. government to modernize its aging legacy systems.

- **Workforce Data**: The Commission should recommend that Congress and the Administration allow the linking of workforce datasets (including but not limited to state and federal unemployment insurance and new hires data sets) to improve the effectiveness and efficiency of publicly-supported workforce development programs, as long as the linking is consistent with strong privacy protections. For example, many states cannot determine the impact of their job training programs without the ability to link their participant information with information about wage earnings across multiple states where participants obtain employment.

- **State Education and Workforce Data Systems**: The Commission should recommend that Congress and the Administration support the enhancement of the existing State Longitudinal Data Systems (SLDS) program administered by the U.S. Department of Education, which helps states integrate education and workforce data, and the proposed expansion of the Workforce Data Quality Initiative that would help build state and local capacity to track employment and educational outcomes of Workforce Innovation and Opportunity Act program participants, including those with disabilities, and provide information about job success rates and training programs.

- **Federal Education Data Identifiers**: The Commission should consider recommending that Congress and the Administration direct federal agencies to standardize the way they collect

and share student-level identifiers (e.g., de-identified but encrypted) so that researchers can more effectively evaluate publicly-supported education and workforce development programs. This information should be housed in one federal agency in order to promote appropriate sharing and usage of this standardized data.

- **Federal Programmatic Data:** The Commission should consider recommending that Congress and the Administration authorize every federal agency to set aside 1% of their program funds for program evaluations that generate programmatic outcomes data that can help make federal programs more effective and efficient.

Data Analysis

- **Data Leadership and Infrastructure**: The Commission should consider recommending that Congress and the Administration direct every federal agency to have a senior staff member (i.e., Chief Evaluation Officer or equivalent position) with the authority, staff, and budget to develop important programmatic data through the evaluation of its major programs and to use this programmatic data and available administrative data to inform the agency's policies and improve its programs.

Data Sharing

- **Local and State Data Systems**: The Commission should consider recommending that Congress and the Administration clarify that local and state agencies can invest federal program funds in strengthening their data infrastructures for processing, standardizing, linking, and making data available to other government agencies and independent researchers via data use agreements with strong privacy protections.

- **Federal Education Data Infrastructure:** The Commission should consider recommending that Congress and the Administration strengthen the U.S. Department of Education's (ED's) data infrastructure, including the hiring and training of key analytic staff, to manage the collection, quality, release, and analysis of education data with strong privacy protections and the support the proposed InformED initiative that would pull together ED's diverse array of data and studies on a particular topic, and allow open data access to help unlock answers to pressing education questions and needs.

Data Usage

- "**What Works" Clearinghouses:** The Commission should consider recommending that Congress and the Administration direct every federal agency to develop a "What Works" clearinghouse or evidence exchange with the purpose of making evaluation reports available to the public.

- **Performance Management/Continuous Improvement:** The Commission should consider recommending that Congress and the Administration direct every federal agency to develop and operate a performance management system with clear and prioritized outcome-focused

goals and aligned program objectives and that frequently collects, analyzes, and uses administrative and programmatic outcomes data to improve outcomes, return on investment, and other dimensions of performance.

- **Federal Grant Programs**: The Commission should consider recommending that Congress and the Administration direct every federal agency to use evidence of effectiveness, including impact analysis and other outcomes measurements based on high-quality administrative and programmatic outcomes data, when allocating funds from its 5 largest competitive and non-competitive grant programs.

- **Evaluation and Research**: The Commission should consider recommending that Congress and the Administration direct every federal agency to have an evaluation policy, evaluation plan, and research/learning agenda which ensures that the agency has an intentional approach to the collection, analysis, sharing, and usage of administrative and programmatic data and publicly release the findings of all completed evaluations to improve the effectiveness and efficiency of federal programs.

- **Repurpose for Results**: The Commission should consider recommending that Congress and the Administration direct every federal agency to use its administrative and programmatic data to determine when to shift funds away from practices, policies, and programs which consistently fail to achieve desired outcomes and toward evidence-based, results-driven solutions.

MONEYBALL FOR GOVERNMENT PRINCIPLES

Government at all levels should help improve outcomes for young people, their families, and communities by:

- Building evidence about the practices, policies and programs that will achieve the most effective and efficient results so that policymakers can make better decisions;
- Investing limited taxpayer dollars in practices, policies and programs that use data, evidence and evaluation to demonstrate they work; and
- Directing funds away from practices, policies, and programs that consistently fail to achieve measurable outcomes.

MONEYBALL FOR GOVERNMENT ALL STARS

The following 126 local, state, and national leaders from across the political spectrum support the Moneyball for Government Principles and have agreed to be publicly identified as Moneyball for Government All-Stars:

Founding All-Stars: Michael Bloomberg (Former Mayor, New York City); Peter Orszag (Former Director, Office of Management and Budget under President Obama); Jim Nussle (Former U.S. Rep., R-IA; Former U.S. House Budget Committee Chairman; and Former Director, White House Office of Management and Budget under President G.W. Bush); Melody Barnes (Former Director, White House Domestic Policy Council under President Obama); and John Bridgeland (Former Director, White House Domestic Policy Council under President G.W. Bush);

Federal All-Stars: U.S. Senator Kelly Ayotte (R-NH); U.S. Senator Michael Bennet (D-CO); U.S. Senator Orrin Hatch (R-UT); U.S. Senator Jeanne Shaheen (D-NH); U.S. Senator Mark Warner (D-VA); Former U.S. Senator Mary Landrieu (D-LA); Speaker of the U.S. House of Representatives Paul Ryan (R-WI); U.S. Representative Todd Young (R-IN); U.S. Representative John Delaney (D-MD); Gene Sperling (Former Director, White House National Economic Council under Presidents Obama and Clinton); Austan Goolsbee (Former Chairman, White House Council of Economic Advisors under President Obama); Richard Riley (Former U.S. Secretary of Education under President Clinton); Robert E. Rubin (Former Secretary of the U.S. Treasury Department under President Clinton); Henry Paulson (Former Secretary of the U.S. Treasury Department under President G. W. Bush); Margaret Spellings (Former U.S. Secretary of Education under President G.W. Bush); Glenn Hubbard (Former Chairman, White House Council of Economic Advisers under President G.W. Bush); Laura D. Tyson (Former Chair, President's Council of Economic Advisers, and former White House National Economic Council Director); and Roger Porter (Former Assistant to the President for Economic

and Domestic Policy under President George H.W. Bush; former Director, White House Office of Policy Development under President Reagan; and former Executive Secretary of the President's Economic Policy Board under President Ford);

State All-Star: VA Governor Terry McAuliffe;

Local All-Stars: Richard J. Berry (Mayor of Albuquerque); Kasim Reed (Mayor of Atlanta); Stephanie Rawlings-Blake (Mayor of Baltimore); Martin Walsh (Mayor of Boston); Michael Hancock (Mayor of Denver); Karen Freeman-Wilson (Mayor of Gary); Stephen Goldsmith (Former Mayor of Indianapolis); Sly James (Mayor of Kansas City); Eric Garcetti (Mayor of Los Angeles); Greg Fischer (Mayor of Louisville); Mitch Landrieu (Mayor of New Orleans); Bill de Blasio (Mayor of New York City); Michael Nutter (Former Mayor of Philadelphia); Angel Taveras (Former Mayor of Providence); Ben McAdams (Mayor of Salt Lake County); Julian Castro (Former Mayor of San Antonio; current Secretary, U.S. Department of Housing and Urban Development); and Ed Murray (Mayor of Seattle);

Non-Profit All-Stars: 85 non-profit CEOs, presidents, and executive directors also support our Moneyball for Government Principles.

What Works Cities

What Works Cities is a national initiative working with cities across the country to enhance their use of data and evidence to engage residents, make government more effective and improve lives.

Launched in April 2015, What Works Cities is one of the largest-ever philanthropic efforts to improve local governments' data and evidence practices and was named by Forbes as "one of the biggest philanthropic bets on social change from 2015."

Through world-class partners, the initiative provides technical assistance to cities with populations between 100,000 and 1,000,000 that are committed and excited to improve the way they use data in governance. What Works Cities collaborates with participating municipalities to review their current use of data and evidence, understand where they are utilizing best practices and identify areas for growth. What Works Cities then designs a customized approach to help mayors and city leaders use data and evidence to address a variety of local issues, including economic development and job creation, public health, and social services.

What Works Cities' support is guided by the **WWC Standard,** which reflects a set of principles and systems that create a strong foundation for the effective use of data and evidence in city government. The components of the WWC Standard reflect the kinds of work city leaders have taken on across the United States to advance What Works practices in their cities:

1	2	3	4
Commit	**Measure**	**Take Stock**	**Act**
What Works leaders make powerful, public commitments to getting better results for their residents by using data and evidence.	What Works cities advance toward goals by measuring progress and outcomes, prioritizing transparency, and using appropriate tools.	What Works Cities leaders consistently review and reflect to measure progress, learn, and make adjustments and improvements.	What Works Cities leaders use data and evidence to inform major decisions and take action.

What Works Cities

As of April 2016, 39 cities in 25 states have been selected to join the initiative.

Our cities represent a diverse cross-section of the country, demonstrating that all types of cities can be What Works Cities. Many of these local governments have already made substantial progress through their work with What Works Cities by passing open data policies, engaging the public with city data, launching performance analytics programs to define and track progress on city goals, and undertaking new efforts to evaluate programs and manage contracts more effectively.

Participating cities receive expert guidance and technical assistance from What Works Cities' partner organizations:

- **Results for America** ensures a world-class experience for all participating cities, coordinates the operations of the What Works Cities initiative, and advances a nationwide dialogue on the need for cities to use data and evidence in decision-making.
- **The Center for Government Excellence at Johns Hopkins University** works with cities to assess the current state of What Works practices, and supports implementation and enhancement of open data and performance analytics programs.
- **The Government Performance Lab at the Harvard Kennedy School** supports cities in improving the results they achieve with their contracted dollars.
- **The Sunlight Foundation** helps cities craft meaningful and sustainable open data policies.
- **The Behavioral Insights Team** helps cities conduct rapid, low-cost evaluations of programs so they can continually improve city services.

What Works Cities is also creating a growing community of cities that share learnings and best practices that will continue long after the technical assistance has ended. We are building a movement of cities around the country that are demonstrating how powerful these practices can be in improving the strength of cities and the lives of their residents.

To learn more about the What Works Cities initiative, visit www.whatworkscities.org

About Bloomberg Philanthropies:

Bloomberg Philanthropies works in over 120 countries around the world to ensure better, longer lives for the greatest number of people. The organization focuses on five key areas for creating lasting change: Arts, Education, Environment, Government Innovation and Public Health. Bloomberg Philanthropies encompasses all of Michael R. Bloomberg's charitable activities, including his foundation and his personal giving.

For more information, please visit bloomberg.org or follow us on Facebook, Instagram, and Twitter @BloombergDotOrg.

Booz | Allen | Hamilton

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October 21, 2016

To the Commissioners on Evidence-Based Policymaking:

As a long-time trusted partner to the United States Government, Booz Allen Hamilton welcomes and appreciates the bipartisan effort to improve services to the American citizen by increasing the availability and use of government data to compile evidence and inform program policy design and implementation. In the spirit of Open Government and collaboration, we appreciate the opportunity to review and provide comments on the Commission's top considerations in its mission to strengthen the government's evidence-building efforts.

Through years of close connection with public sector clients, we have observed the lingering barriers to data-driven insights – for example, the exceedingly difficult nature of linking disparate public datasets, the need for significant coordination across multiple agencies to extract meaningful insights from data, shortages of data management and data science skills, challenges with privacy and risk related to data, the ability to adopt data operations and technology, and cultural resistance to change. We understand the concerns of both data providers and data consumers, and recognize the need for a range of expertise from the policy level down to infrastructure. Attached is the synopsis of our point of view on evidence-based policymaking.

We appreciate the opportunity to respond to this exciting and innovative initiative. We look forward to a continued dialog with the Commission on strategies to increase the availability and use of government data, and to offer best practices and share lessons learned from our experiences in overcoming the challenges of data-driven initiatives. We hope to partner with you all to continue to refine and develop this approach as you move forward with your recommendations.

Sincerely,

BOOZ ALLEN HAMILTON INC.

RK Paleru,
Principal

Enclosure

Submission to the Commission on Evidence-Based Policymaking

(Booz Allen Hamilton's Point of View)

The U.S. Federal Government relies on evidence-based policy development, execution, and evaluation to maximize policy effectiveness and socio-economic value delivered to citizens. Such an approach to evidence-based policymaking (EBPM) is currently undergoing transformation, driven by: the increased desire of experts across academia, the nonprofit community, and research institutions to access and link statistical data for effective analysis in support of policy decisions; the greater need for government accountability in program spending and evaluation; and the pace of change in data-related technology that is enabling secure exchange, storage, processing, analysis, and visualization of insights. Such data-driven initiatives – while leading to better policy decisions, program effectiveness, and increased return on government spending – pose significant privacy risks through the potential loss of personally identifiable information (PII).

Government agencies generate two types of data: administrative data, generated as part of fulfilling their respective missions; and survey data, generated as part of collecting information directly from citizens and businesses. When deployed, linked, and analyzed together, these datasets have the huge potential to transform research evaluation and policymaking. In this context, the recent government legislation on HR 1831 to set up a commission to evaluate and recommend best practices in EBPM is a great step forward and one in which Booz Allen Hamilton completely supports. This point of view document highlights some of Booz Allen's perspectives on the topic of EBPM, categorized across three dimensions: Program Effectiveness and Policy, Data Clearinghouse, and Privacy and Security.

Program Effectiveness and Policy

- <u>Linking Administrative and Survey Data</u>. Any government policy serving the needs of civil society could have administrative impact across multiple government agencies and programs. However, the data that support such policies and programs often reside in agency silos with limited scope and little impact for cross-government effectiveness. Unleashing such information will lead to better policymaking and governance. For example, eligibility and participation data tracked by the Social Security Administration – when combined with taxpayer data on income and tax subsidies from the IRS, survey data from the U.S. Census Bureau, and data from other agencies, such as HHS and HUD – could exponentially increase our ability to ask questions that have never been asked before and enhance our potential to draw insights that could not have been derived before.

- <u>Government Accountability</u>. Government agencies have to go beyond programmatic evaluation and start linking spending data with the economic value derived. For example, to increase transparency in federal spending, the Digital Accountability and Transparency Act (DATA) has mandated all government agencies to consolidate and publish government spending. It is a logical next step that such spending-related information is linked with

program performance data to enable cost-benefit analyses and better direct the application of government funding to programs.

- <u>Public-Private Partnerships</u>. Government agencies are constrained by budgets and resources to support comprehensive research and analysis of government programs. For example, data scientists – who have the ability to crunch large datasets to generate insights – are not available within the government at the scale necessary to support such comprehensive research. Partnerships serve as a "force multiplier" providing opportunities to share resources and responsibilities amongst government, academic, non-profit, and private entities to provide mutual support in research and policymaking.

Data Clearinghouse

- <u>Centralized Data Hub</u>. At the core of EBPM is the ability to build and operate a data clearinghouse (i.e., a centralized data hub) that is robust, secure, and scalable to accept large datasets from multiple providers. This hub should be built utilizing standardized information exchange formats that make the process of collection, ingestion, storage, processing, linking, and dissemination of data seamless. The centralized data hub should serve the analytical needs of a diverse set of policy researchers and subject matter experts by allowing controlled access to data using sophisticated mechanisms in conformance with established data-sharing agreements and policies.

- <u>Data Operations</u>. Maintaining a minimum-touch, fully integrated, highly secure and automated data operations capability is critical for serving the needs of stakeholders. Such a capability would include maintaining robust data catalogues, metadata management tools, data-sharing agreements, policy agreements, and data exchange standards to facilitate data sharing. Given the analytical rigor in research, data operations capabilities should also place emphasis on data quality standards, data governance, and stewardship.

- <u>Self-Service Capabilities</u>. Program evaluation requires identifying the right stakeholders, the context of their policy research, and access to data through self-service capabilities. Meaningful insights from data that drive the effectiveness of programs and outcomes would require self-service tools and analytics capabilities to explore, curate, cleanse, collaborate, and share insights within policy research communities with shared goals. In particular, the self-service capabilities should support descriptive statistics, analytical modeling, predictive analytics, and machine learning required by today's policy research communities.

Privacy and Security

- <u>Data Governance and Stewardship</u>. Security and privacy needs must be balanced with the utility of data. Completely closed datasets, while fully secure, offer limited value to society or taxpayers. Opening datasets for research can influence significant policy changes for social good but pose significant privacy risks. Therefore, it is imperative that formal data stewardship is encouraged amongst data providers (e.g., government agencies), data

intermediaries/custodians (e.g., U.S. Census Bureau), and data consumers (e.g., policy researchers). Formal data-sharing agreements, the definition of appropriate use, and records management/retention policy should be clearly defined. Data sharing should clearly articulate legal authority, permitted uses, and data access. Any new sharing or access arrangement should be accurately described in a System of Records Notice (SORN) and Privacy Impact Assessment (PIA), as appropriate, and all access to datasets should be automated to rely on policy and controls.

- <u>Security and Contextual Controls</u>. Best-in-class security that protects data in flight and data at rest is a pre-requisite to managing such a data infrastructure. Since researchers use data very differently, privacy-related controls have to address these needs differently. Aggregated and macro-datasets can be "Open" and free for download as is already happening with Open Data, while becoming relatively "Closed" with the increasing granularity of micro-datasets. Finally, the latest advancements in the fields of cybersecurity and applied cryptography should be leveraged to provide open but secure access to data.

- <u>Training and Audit</u>. Qualified researchers and institutions must be trained in both the appropriate policies surrounding the use of data, as well as any technology use and restrictions. Access to and use of such data should be audited periodically. Analytics and reporting mechanisms should be deployed to detect anomalies and undertake corrective actions.

Commission on Evidence-Based Policymaking—Public Hearing
Friday, October 21, 2016

Comments submitted by:
Amanda Janice Roberson, Research Analyst
Institute for Higher Education Policy

Abstract: The current postsecondary data infrastructure is fragmented and incapable of answering a number of important questions about how our students fare in the higher education system. Key stakeholders, including policymakers, institutions, researchers, and the students themselves, need better information about college access, progression, completion, and post-college outcomes. Given the federal government's substantial investment in postsecondary education, it is imperative that existing data – at the institutional, state, and federal levels – are leveraged to answer these critical questions. By fostering these data linkages and removing existing legal barriers, the Commission can create a system where data drive efforts to increase postsecondary success and close equity gaps.

Oral and Written Statement: Chairman Abraham, Co-Chair Haskins, and commissioners: thank you for the opportunity to address the Commission on Evidence-Based Policymaking on the importance of a cohesive postsecondary data infrastructure and its impact on evidence-based policymaking.

My name is Amanda Janice Roberson and I am a research analyst with the Institute for Higher Education Policy. IHEP is a nonpartisan, nonprofit organization committed to promoting access to and success in higher education for all students, with a focus on students who have been underserved by our postsecondary system. Based here in Washington, D.C., we believe that all people, regardless of background or circumstance, have the opportunity to reach their full potential by participating and succeeding in higher education.

In support of this goal, IHEP leads the Postsecondary Data Collaborative (PostsecData), a partnership between more than 35 organizations committed to the responsible use of high-quality postsecondary data to improve student outcomes. PostsecData partners represent a broad range of constituents, including groups that represent students, postsecondary institutions, the workforce community, and state and federal policy influencers and researchers.

Since 2014, IHEP has spearheaded research on which data should be collected, how metrics should be defined, and through which mechanisms our currently disconnected, duplicative, and incomplete data systems can work together to create a cohesive postsecondary data ecosystem. IHEP supports the mission of this Commission to analyze and make recommendations for streamlining federal data and data systems. We suggest the following actions to improve the landscape of postsecondary data for use by policymakers, students and families, institutions, and researchers.

- **Promote best practices in privacy and security for interconnected data systems.** Recommendations by the Commission for data linkages should address the importance of privacy, security, and confidentiality. As institutional practices and changing laws at the state level have led to confusion around when it is permissible to share or link data, policies and procedures from the Commission should be transparent, consult with data security experts to implement field-recognized best practices, and ensure that all publicly reported, aggregate data are stripped of personally identifiable information.

- **Leverage existing data to decrease burden, streamline reporting, and answer critical questions.** Data from sources like the U.S. Department of Education (which houses the National Student Loan Data System [NSLDS] and Integrated Postsecondary Education Data System [IPEDS]), Social Security Administration (SSA), the Department of Defense (DoD) and Department of Veterans Affairs (VA), among others, should be linked and leveraged to create a more complete picture of the higher education landscape. These sources provide valuable data on important subgroups of students who are often overlooked, including Pell grant recipients, student loan borrowers, and student veterans. If linked, these data would produce valuable information about enrollment and completion rates, and post-college employment and earnings. The Commission should consider ways to increase capacity and funding available to streamline processes and link data, as these are the primary challenges for state and local level data linkages.

- **Expand access to wage and labor market information for postsecondary outcomes.** In an era of scarce resources, the value of a postsecondary degree has never been greater, and post-college outcomes are increasingly important to policymakers and students. Now, data and metrics on employment and earnings are limited to voluntary initiatives, like College Measures, state dashboards, and the College Scorecard, revamped in September 2015. The Commission should explore datasets, like the Census Bureau's Longitudinal Employer Household Dynamics (LEHD) program or the National Directory of New Hires (NDNH), which both utilize state Unemployment Insurance (UI) wage records, or the Social Security Administration and Internal Revenue Service tax records, to understand the return on personal investment of students and families and federal investment in higher education.

- **Align definitions and metrics across federal laws.** Establishing common definitions for data metrics across federal laws like the Higher Education Act, the Workforce Innovation and Opportunity Act, and the Perkins Career and Technical Education Act could reduce administrative burden and create comparable outcomes across federal programs. Common and consistent metric definitions in the postsecondary ecosystem would make it much easier to link data between local, state, and federal sources and allow for accurate comparisons.

- **Recommend that Congress overturn the ban on a federal student-level data system.** The statutory ban on a federal student unit record system stifles the ability of policymakers to answer questions about our postsecondary system, limits the information available to consumers, and imposes unnecessary burden onto institutions. The Commission should recommend to overturn the ban and direct the U.S. Department of Education to engage with the higher education community to design and implement a student-level data system. This system would create a nationwide, inclusive data set that shows how students move through higher education and their post-college outcomes. This system would allow for disaggregation by key student characteristics, like Pell Grant receipt, race/ethnicity, and others, and illuminate evidence for future policymaking around closing equity gaps and the federal investment in higher education and postsecondary programming. Given the sensitive nature of record level data, the Commission should also recommend rigorous data privacy and security policies to govern this system.

Thank you for your time and the opportunity to provide a statement to the Commission. I look forward to answering any questions.

Commission for Evidence-Based Policymaking Public Hearing: Remarks from the American Statistical Association's Scientific and Public Affairs Advisory Committee

October 21, 2016

My name is Clyde Tucker and I am a member and former chair of the American Statistical Association's Scientific and Public Affairs Advisory Committee. The American Statistical Association was founded in 1839 and is the oldest continuously operating scientific society in the United States. With more than 19,000 members working in academia, government, and industry, the ASA works to promote the practice and profession of statistics, the science of learning from data, and measuring, understanding, and communicating its uncertainty. We believe that statistics and the ability to interpret statistical evidence are integral to the success of evidence-based policy making.

The ASA lauds Speaker Ryan and Senator Murray for their actions and efforts to bring evidence-based policymaking into the limelight. The ASA heartily supports the Commission for Evidence-Based Policymaking and looks forward to the Commission's efforts to improve the science surrounding evidence-based policymaking. We appreciate that three Commissioners are members of the ASA, two of which are former heads of federal statistical agencies. In my brief comments today, I will focus on five issues: (i) the stature and autonomy of the federal statistical system; (ii) data sharing that leads to data synchronization; (iii) concerns related to privacy and confidentiality that may present barriers to the release of data needed for evidence-based policy making; (iv) nurturing evidence-based policymaking capacity across the federal government; and (v) statistical evidence.

To ensure that the statistical analysis used to support evidence-based policy making is both impartial and accurate, the integrity of the research process must be maintained. In particular, the ASA believes that the federal statistical agencies will play a vital role in evidence-based policymaking, and ASA is committed to supporting the historical autonomy of these agencies in order to ensure the integrity of their work. In a 2015 letter to Congress, twenty former statistical agency heads wrote,

> As the foundation for policy making and policy administration, objective and credible statistical data are vital to our democracy, economy, governance, and well-being. All sides of a policy debate should be able to look to the statistical data as objective and high quality. Any perception that the data have been influenced by a partisan perspective undermines the policy making and its administration. The independence of a federal statistical agency is a critical element in an agency producing objective and credible statistical data… Statistical agencies should have complete control over data collection, analysis, and publication. Such autonomy

should include control over an agency's planning, budget, press releases, and information technology.

In the past, this independence for some agencies has been protected from direct political interference by requiring that the heads of statistical agencies be appointed by the President and confirmed by the Senate. Currently, however, Senate confirmation is no longer required to appoint the director of the Bureau of Justice Statistics or the commissioner of the National Center for Education Statistics (NCES). There is also a House-passed bill pending in the Senate that would remove presidential appointment of the NCES Commissioner.

The ASA also supports data linkage and collaboration between the federal statistical agencies. Indeed, greater information sharing across agencies would enhance the research supporting evidence-based policymaking. One example of this type of data sharing is data synchronization. For example, ASA advocates, as a follow up to the Confidential Information Protection and Statistical Efficiency Act (CIPSEA), providing the Bureau of Labor Statistics and the Bureau of Economic Analysis the same access to the Internal Revenue Service's business information that the Census Bureau currently has. Supported not just by ASA but also by a wide variety of other stakeholders, this carefully crafted proposal costs no money, but would result in substantial improvements to the quality of our nation's official economic statistical data, ultimately benefitting policymakers, US businesses, and many other Americans. For more information on this, I provide links to three resources at the end of my written comments that I understand you will have access to.

Although privacy and confidentiality are important concerns with respect to the release of data for research purposes, barriers created to ensure privacy and confidentiality could limit analysis critical for evidence-based policymaking. In particular, researcher's access to data often is delayed as a result of the need to undergo reviews by multiple Institutional Review Boards (IRBs). This process can impede the ability to respond quickly to the needs of policymakers. I have provided a link to a new National Academies report that notes the delays caused by the multiple IRB approvals sometimes needed for a single study and the serious problems this creates for timely policymaking.

While perhaps beyond the charge of this committee, ASA also encourages more resources for federal agencies to develop their internal capacities for evidence-based policymaking. Although the statistical agencies have statistical expertise needed for evidence-based policymaking, a number of agencies do not. More could be done to increase this analytical capacity across the government. Given the constrained budgets of the federal government, we understand adding personnel with appropriate expertise isn't widely feasible. However, we strongly encourage alternative solutions, such as guidance documents and professional development on this topic. In fact, staff at the statistical agencies might be involved in these endeavors. We would also support greater agency collaboration through reduced barriers and greater access to data for trusted and vetted users in ways that ensure confidentiality protection.

Let me close with comments on statistical evidence for the wider evidence-based policymaking community. We encourage the use of modern statistical and data science methods in program evaluations—methods such as Bayesian modeling, decision analysis, and big data techniques. To put our comments in context, we recently saw statistical language in pending legislation that seemed artificially restrictive. Specifically, we were concerned that the language might limit analysis to significance testing or p-values alone.

The ASA Scientific and Public Affairs Advisory Committee recently released a statement with guidance on statistical language in legislation, http://ww2.amstat.org/misc/SPAAC_GuidanceStatisticalEvidence.pdf. We look forward to continued conversation on this issue.

To reiterate, we fully support the Commission on Evidence-Based Policymaking and look forward to engaging the statistical community in your efforts. Thank you for your time.

Links for 2015 letter to Congress from twenty former statistical agency heads:
- http://ww2.amstat.org/misc/FormerAgencyHeadLetter.pdf
- http://community.amstat.org/blogs/steve-pierson/2015/01/29/former-federal-statistical-agency-heads-urge-stronger-nces-as-senate-panel-advances-bill-to-weaken-it

References on Data Synchronization
- http://www.aei.org/publication/data-asymmetry-public-policy/
- http://www.copafs.org/UserFiles/file/FederalBusinessRegistryLetterSenatewithAttach.pdf
- http://magazine.amstat.org/blog/2011/11/01/data-synchronizationscipolicy/

Reference to the National Academies report on multiple IRB approvals
- https://www.nap.edu/catalog/23670/strengthening-data-science-methods-for-department-of-defense-personnel-and-readiness-missions

PUBLIC SUBMISSION

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Comment on FR Doc # 2016-22002

Submitter Information

Name: Christel Swasey
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General Comment

Dear Commission on Evidence-Based Policymaking,

I love the American concept of voter-based, Constitution-based, elected representative-based, policymaking. It's why I live in America. In contrast to voter-based policymaking there is evidence-based policymaking, which I don't love because it implies that one entity's "evidence" trumps individuals' consent to new policy changes.

Former Secretary of Agriculture Ezra Taft Benson said something about education that also applies to educational data and policymaking:

"The best way to prevent a political faction or any small group of people from capturing control of the nation's educational system is to keep it decentralized into small local units... This may not be as efficient as one giant super educational system (although bigness is not necessarily efficient, either) but it is far more safe. There are other factors, too, in favor of local and independent school systems. First, they are more responsive to the needs and wishes of the parents and the community. The door to the school superintendent's office is usually open to any parent [or teacher]... But the average citizen would be hard pressed to obtain more than a form

letter reply from the national Commissioner of Education in Washington, D.C."

Local control, and consent of the governed, are two foundational principles in our great nation.

Because the CEP is not an elected body, it does not hold authority to collect, or to recommend collection, of student-level evidence, or of any evidence, without written consent; and, for the same reasons, neither does the Department of Education.

Because the fifty, federally-designed, evidence-collecting, State Longitudinal Database Systems never received any consent from the governed in any state to collect data on individuals (as the systems were put into place not by authority, but by grant money) it follows that the idea of having CEP study the possible removal of barriers to federal access of those databases, is an egregious overstep that even exceeds the overstep of the State Longitudinal Database Systems.

Because federal FERPA regulations altered the original protective intent of FERPA, and removed the mandate that governments must get parental (or adult student) consent for any use of student level data, it seems that the idea of having CEP study and possible influence removal of additional "barriers" to federal use of data, is another egregious overstep.

As a licensed teacher in the State of Utah; as co-founder of Utahns Against Common Core (UACC); as a mother of children who currently attend public, private and home schools; as acting president of the Utah Chapter of United States Parents Involved in Education (USPIE); as a patriot who believes in "consent of the governed" and in the principles of the U.S. Constitution; and, as a current tenth grade English teacher, I feel that my letter represents the will of many who stand opposed to the study of the removal of protective barriers on student-level data, which the CEP's website has outlined it will do.

I urge this commission to use its power to strengthen local control of data, meaning parental and teacher stewardship over student data, instead of aiming to broaden the numbers of people with access to personally identifiable student information to include government agencies and/or educational sales/research corporations such as Pearson, Microsoft, or the American Institutes for Research.

To remove barriers to federal access of student-level data only makes sense to a socialist who agrees with the Marc Tucker/Hillary Clinton 1998 vision of a cradle-to-grave nanny state with "large scale data management systems" that dismiss privacy as a relic in subservience to modern government. It does not make sense to those who cherish local control.

It is clear that there is a strong debate about local control and about consent of the governed, concerning data and concerning education in general. NCEE Chair Mark Tucker articulated one side of the debate when he said: "the United States will have to largely abandon the beloved emblem of American education: local control. If the goal is to greatly increase the capacity and authority of the state education agencies, much of the new authority will have to come at the expense of local control."

Does that statement match the philosophical stand of this commission? I hope not. Local control means individual control of one's own life. How would an individual control his or her own destiny if "large scale data management systems" in a cradle-to-grave system, like the one that Tucker and Clinton envisioned, override the right to personal privacy and local control? It is not possible.

I urge this commission to use any influence that it has to promote safekeeping of unit-record data at the parental and teacher level, where that authority rightly belongs.

Sincerely,

Christel Swasey

United States Parents Involved in Education (USPIE) is a nonprofit, nonpartisan, nationwide coalition of state leaders focused on restoring local control of education by eradicating federal intrusion. State leaders from around the country fed up with being ignored on education policy have joined forces to abolish the US Education Department and put an end to all federal education mandates.

USPIE endeavors to inform Americans of the trillions of dollars wasted on federal education in the last 35 years with nothing to show for it but stagnant, and declining test scores. It is the goal of USPIE to return American's education to its proper local roots and restore parental authority over their children's education.

USPIE's STOP FED ED campaign is led by parents, taxpayers and educators committed to ending the U.S. Department of Education. The fight against Common Core has exposed the failures of those trying to force a federally-based one size fits all curriculum on states and local school districts.

So we ask, "why even have a federal department?" Because it's not about children. It's about control. Control through federal dollars. And it's big business. It's about pushing an agenda. And it's about ending something that had worked for years and replacing it with something no one even understands.

For half a century now this experiment with federal control of local public schools has gone on and it's failed. Let's stop treating our children like rats in some social engineering laboratory and start treating children like children again. The first step is ending the Department of Education and that's what STOP FED ED is all about.

H1_2016_14
October 21, 2016 Hearing
United States Parents Involved in Education
Presenter: Erin Knowles
Note: Erin Knowles was unable to be present, but submitted written
remarks.

H1_2016_11
October 21, 2016 Hearing
Presenter: Quentin Wilson (independent researcher)

From Data to Action:
Achieving Results People Care About Most

PRESENTATION TO THE

COMMISSION ON EVIDENCE-BASED POLICYMAKING

QUENTIN WILSON

WASHINGTON, DC

OCTOBER 21, 2016

Breaking Good

The effective use of good data is vital to achieving the results about which people care most.

The CEP environment includes a global consensus, bi-partisan support, high ambitions, new resources and recent successes in the use of data, analysis and evidence to improve public program performance.

The Commission agenda on data access and protection can help broaden and deepen the use of data and analysis for that purpose.

The value of this agenda can be increased and sustained to simultaneously take two big steps:

- Providing information and other resources to help speed the improvement process; and
- Linking programs performance to the high-level results about which people care most.

Global Consensus and Advancement: Using Data to Achieve Better Results

- Tim Berners-Lee, Founder of the World Wide Web: The Next Web
- UN Guidelines on Open Government Data
- White House Executive Order and 9/28/16 Open Data Innovation Summit
- Commission on Evidence-Based Policymaking
- Results Washington
- Maryland StateStat
- Baltimore OutcomeStat

You've Got a Friend: Emerging Research, Advocacy and Support Resources

Governing Institute   Living Cities

Results for America   USC Civic Data

Pew-McArthur Results First Initiative and Clearinghouse

Bloomberg Philanthropies What Works Cities

Harvard Data-Smart City Solutions

Hewlett Foundation Effective Philanthropy Group

Evidence-Based Policymaking Collaborative

Postsecondary Education Data Collaborative

    Bill & Melinda Gates Foundation

    Institute for Higher Education Policy

Caring about Data:
Making a Difference on Results that Matters Most

Key Result Area	Data-Based Initiatives
Priority Outcomes	
Education	
College Completion	**Career & College Clubs**
Child Development	First Five/Parents as Teachers
Public Safety	
Violent Crime	Gang intervention
Worker Safety	Highway construction process
Health	
Substance Abuse Prevention	SAMHSA E-B Program Registry

College Completion:
Career & College Clubs

The Career & College Clubs curriculum uses peer-to-peer learning to empower middle school students to succeed in high school and beyond.

48% increase in positive responses to the statement: I KNOW HOW TO GET the college information I need.

47% increase in positive responses to the statement: I KNOW THE COLLEGE application process.

41% increase in positive responses to the statement: I KNOW WHAT COURSES and tests I need to take to be eligible for admission to a 4-year college or university.

9% increase in positive responses to the statement: I KNOW WHAT CAREER I want to pursue, and what I need to study in college to achieve my career goal.

Data Making a Difference - II

Key Result Area	Data-Based Initiatives
Priority Outcomes	
Economic Prosperity	
Strong Neighborhoods	Blight Reduction
	Housing
Employment Opportunity	**Pathways to Careers**
Effective Government	Santa Monica FD
	Missouri Dept. of Revenue
Energy and the Environment	

Economic Prosperity: Bridgespan's Billion Dollar Bet on Pathways to Careers

Data-based research-driven proposal

Potential investments in six result areas "emphasized the need to better track and manage data."

Results measured by Return on Investment (ROI) model. (10X)

Aspirational individual outcome
Achievement of a postsecondary credential with labor market value

Maximum potential reach		Proportion achieving impact		Direct economic impact		Return on investment
2.2 Million adults will be in regional areas affected by investments over the course of five years	×	3% to 6% of adults in regional areas affected will be able to achieve a credential based on expanded pathways	×	$111,000 Net present value (NPV) of improved lifetime earnings	=	$7.3B to $14.7B in potential economic benefit for individuals and families

State Initiatives:
California Performance Excellence Resources

- California Data Collaborative
- California Evidence-Based Clearinghouse
- California Open Justice initiative
- Open Data tech firms
- Local government leaders

Setting the Stage for Faster, Better Results: What's Needed Now

Create a repository of consensus outcomes and measures, and resources for improvement.

Encourage leadership and collaboration among agencies, levels of governments and sectors.

Build a culture of support for the use of data and outcomes that matter, not punishment and misguided "accountability."

Develop more accessible, commonly accepted and usable data.

- "80% of data lives in forms and places our teams and systems can't easily process."- IBM Watson Team
- World Wide Web founder Tim Berners-Lee: Linked Data

Next Steps: Using Data and Analysis for Faster, Better Results People Care About

Prioritize organizational goals, outcomes and measures from the inventory of options.
- Utilize data and information about the current, projected and comparative performance on these outcomes.
- Involve the public, elected officials, researchers, advocates and practitioners in the prioritization process.

Speed effective implementation with access and use of resources.
- Policy and program research and advocacy
- Promising practices
- Technical assistance and training

Integrate performance assessment and review with strategic planning.

For More Information:

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H1_2016_13
October 21, 2016 Hearing
Veterans Education Success
American Institutes for Resarch
Presenters: Carrie Wofford and Mark Schneider

Commission on Evidenced-Based Policymaking
Submission by
Carrie Wofford, President, Veterans Education Success &
Mark Schneider, Vice President, American Institutes for Research

The Need to Share and Link Federal Data on the Post-9/11 GI Bill

We urge the Evidence Based Policymaking Commission to take steps to end the siloization of federal data and ensure that federal agencies share data.

The Post-9/11 GI Bill provides an important example of the detrimental impact of siloed federal data.

Why it Matters:
Historians and economists frequently credit the original GI Bill with helping to build America's Middle Class following WWII. After the 9/11 terror attacks on American soil, a new GI Bill was enacted to provide the current generation of veterans with their ticket to the American dream, helping 1.5 million veterans at a cost to taxpayers of $61 billion since August of 2009. The goal is to assist veterans in the transition to a successful civilian career.

In order to best serve veterans and the federal taxpayer investment, government officials, higher education leaders, and policymakers need to know how the GI Bill is succeeding and "what works" under the GI Bill.

Such an assessment is impossible because federal data regarding student outcomes and occupational outcomes for veterans remain siloed across several federal agencies.

At this time, nobody in America knows the student veteran graduation rate, debt rate, default rate, or whether the Post-9/11 GI Bill is succeeding in supporting veterans' transition to civilian occupational and income success. Little is known about veterans' educational attainment, debt or default, because the U.S. Education Department (ED) does not know which students are veterans and the U.S. Department of Veterans Affairs (VA) does not track student outcomes. Although ED formerly tracked veterans in its database, it stopped doing so in 2009, when it introduced a skip-pattern in its FAFSA form, such that most veterans never seeing the question about military service. Unfortunately, this change at ED was launched the exact same year (2009) that the Post-9/11 GI Bill went into effect. A 2014 U.S. Senate Committee reported that for-profit colleges dominate the Post-9/11 GI Bill and generally provide poor outcomes for students overall, while costing taxpayers twice as much per veteran as public colleges and universities, but student outcomes specific to veterans was unknown. Indeed, reporters asked the Senate Committee what the student veteran graduation rate was, and this question was

impossible to answer because the data needed to answer this basic question is held in separate agencies.[1]

In addition, occupation and income data from IRS and Census is not linked to either VA or ED data.

What Data-Linking or Sharing Could Achieve:
If data from VA and ED were shared or cross-walked and if occupational and income data from IRS or Census were added, the resulting combined data set would provide solid answers on the student veteran graduation rate, debt and default rates, job placement rate, and income. The shared data would:

Help veterans make an informed college choice as they decide where to use their GI Bill by arming them with data about veterans' probability of graduation and likely earnings trajectory from each college (and each program). VA's GI Bill College Comparison Tool is currently the best source of information for veterans choosing a college, but it does not provide veteran-specific data. If federal data were shared, VA's GI Bill College Comparison Tool could be as robust as ED's College Scorecard. The College Scorecard was possible only because federal agencies shared data. The College Scorecard provides students with important data-points about student graduation (specifically, the graduation rate within 150% of expected time to completion for first-time, full-time students) and salary after attending (specifically, the median earnings of former students who received federal financial aid 10 years after entering the school). It should be noted that much of ED's data is limited to first-time, full-time students, which is an outdated limitation and one the Commission should urge ED to change.

Help Congress and policymakers improve regulation by providing data on Post-9/11 GI Bill students and their debt and occupational rates. Currently, Congress and policymakers have no data on the student outcomes, nor on the occupational and income outcomes, of educational paths under the Post-9/11 GI Bill. Understanding a return on investment would assist

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[1] Private efforts have tried to determine the student veteran graduation rate, but it is impossible without VA and ED actually sharing data. The largest private effort (by Student Veterans of America, known as the 2014 "Million Records Project" and its 2016 update "NVEST") undertook to match VA data on Post-9/11 GI Bill use against data from the National Student Clearinghouse to try to determine the student veteran graduation rate for a subset of GI Bill users. But the Clearinghouse data is limited to degree-granting schools (and covers most, but not all veterans at degree-granting schools), so it provides only a limited answer. Most notably, Clearinghouse does not track students at certificate, non-degree programs, nor vocational/technical programs (both of which are covered under the GI Bill). VA estimates that nearly half of the GI Bill is spent at non-degree schools, meaning that the Clearinghouse data and the "Million Records Project" are missing half of GI Bill students. Specifically, VA reports that among Post-9/11 GI Bill students starting their education in 2015: some 54,000 Post-9/11 GI Bill students were starting non-degree college programs, and 30,000 started vocational and technical programs, while 87,275 started undergraduate degree programs and 19,222 started graduate degree programs.

policymakers greatly, but requires federal data matches. Data-linkage would enable exploration of the effectiveness of the Post-9/11 GI Bill in ensuring a successful civilian career for the current generation of veterans. Adding in data from the U.S. Defense Department's test scores on service members' abilities and skills could serve as "controls" in determining the impact of the GI Bill.

Executive Order 13607 (April 27, 2012) required VA and ED to share data to determine veteran student outcome measures, but, four and a half years later, the agencies still have not completed an MOU to do so.

Detailed Questions That Could Be Answered if Federal Data Were Combined:

1. **Participation in the Post-9/11 GI Bill**:

    a. **Nearly half of the Post-9/11 GI Bill goes unclaimed**. What are the demographics of veterans who skip the GI Bill? How are they faring? What are their occupations and incomes, and how do those compare to their occupations and incomes prior to military service? Are they reliant on public assistance? Did they skip the GI Bill because they already had a college degree, or because they had a strong career before military service? By historic contrast, only 20% of eligible veterans skipped the original GI Bill following WWII, and such eligible non-participants were often older (over the age of 35).[2] In terms of occupation prior to military service, most veterans who utilized the original GI Bill after WWII had "little or no pre-war experience in jobs requiring extensive skill or training," while those who skipped it (eligible non-participants) had been "working in jobs of a fairly high level" before the war.[3] Are these trends true today under the Post-9/11 GI Bill? Veterans organizations report anecdotal evidence that many veterans skipping today's GI Bill do need higher education but feel intimidated by the college search process and fear their academic skills are not up to par.

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[2] The President's Commission on Veterans' Pensions, *Veterans Benefits in the United States* (April 1954), Omar Bradley, Chairman (known popularly as the "Bradley Commission"), *available at* http://www.cnas.org/sites/default/files/Bradley_Commission_Report1956.pdf (page 251, 259). The Bradley Commission found that 83-86% of veterans in the two youngest groups (under 20 or between 20-24 years of age) used the GI Bill.

[3] Bradley Commission, *available at* http://www.cnas.org/sites/default/files/Bradley_Commission_Report1956.pdf (page 261). The Bradley Commission also reported that that many of the younger veterans "had held no regular job before entering service. In general, those who had held jobs were in relatively unskilled occupations." (page 258). In contrast, only 30% of pre-war managers and proprietors used the original GI Bill, as did only 39% of pre-war full-time employees. (page 261)

b. **Participation under the Post-9/11 GI Bill is increasing each year**. VA data shows that nearly 1 million eligible individuals participated in 2011, a 15% increase over FY 2010 and a 71% increase over FY 2009. Do the data show better student outcomes (such as persistence and completion) and civilian employment success among more recent GI Bill students as compared to 2009 and 2010? Are student loan debt and default levels rising? Has the return on taxpayer investment changed over time?

c. **Non-Veteran vs. Veteran Participants**. Veterans can choose to give some or all of their Post-9/11 GI Bill to their spouse or dependents, and 18% of GI Bill students are spouses or dependents. Do non-veteran GI Bill students enjoy better outcomes than veterans? Do they have better persistence and completion rates in college, perhaps indicating that veteran students need more support on campus? How do non-veteran Post-9/11 GI Bill students' loan debt and default rates compare to their veteran counterparts? Do non-veteran participants have higher incomes and better correlation between their occupation and field of degree?

d. **Outcomes by Demographics**. Are there differences by age, race, gender, ethnicity, or residential region in outcomes for Post-9/11 GI Bill users? For example, some VA analyses suggest that women veterans are more likely to use the Post-9/11 GI Bill than men. Is their persistence better? Are their outcomes better?

2. **GI Bill Effectiveness**. How effective is the Post-9/11 GI Bill in ensuring a successful civilian career for the current generation of veterans?

a. **Income & Public Assistance**. Do veterans have higher incomes and less dependence on public assistance programs after using the Post-9/11 GI Bill than before they used it? By point of comparison, the original GI Bill, following WWII, reportedly reduced reliance on unemployment assistance from 20% of veterans.[4] What is known about veterans who rely on public assistance programs? How many have a college degree, whether through the Post-9/11 GI Bill or otherwise? What was their field of study in college? What is their occupation?

b. **Degree and Occupation**. Do veterans have different occupations after using the Post-9/11 GI Bill than before they used it? Among Post-9/11 GI Bill users, which occupations, degrees, and fields of study result in the highest income and least reliance on public assistance? Do the degrees and occupations correlate, or is occupational success (at least in some occupations) independent of degree

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[4] Bradley Commission, *available at* http://www.cnas.org/sites/default/files/Bradley_Commission_Report1956.pdf (pate 251).

obtained? What about licensed occupations? Does the GI Bill help veterans obtain work in licensed occupations? (Approximately 20% of a sample of 300 degree programs approved by VA for Post-9/11 GI Bill in licensed occupations are improperly accredited and fail to leave the graduates eligible to work.[5] What percent of veterans working in licensed occupations used the Post-9/11 GI Bill in that field of study? Are public colleges more likely to have the right accreditation for graduates to be eligible to work in licensed fields?) Which degrees and institution types produce graduates employed in which fields, with which licenses?

c. **Debt and Default**: What are the student loan debt and default rates for both veteran and non-veteran beneficiaries using the Post-9/11 GI Bill? Are debt and default rates higher for veterans than non-veteran students using the Post-9/11 GI Bill? Are there correlations in student loan debt and default by degree and field of study obtained? By college type (online vs. brick and mortar) and institutional sector? By occupation and income?

d. **Montgomery GI Bill vs. Post-9/11 GI Bill**: Does the Post-9/11 GI Bill deliver better return on investment, including student and occupational outcomes, than its immediate predecessor, the Montgomery GI Bill?

3. **Which College Experience Yields the Best Return on Investment under the Post-9/11 GI Bill?**

a. **Brick and Mortar vs. Online**. Among Post-9/11 GI Bill users, what type of college is most effective? Many experts assume brick and mortar colleges are more effective than online education, but online education is very popular with military students. What are the educational outcomes and civilian employment success for online student veterans?

b. **Institutional Sector**. Among Post-9/11 GI Bill users, which sector of college is associated with the best student outcomes and civilian employment success: public, non-profit, or for-profit? What is the return on investment from each sector?

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[5] See Veterans Education Success, "The GI Bill Pays for Degrees That Do Not Lead to a Job," (Sept. 2015) *available at* http://static1.squarespace.com/static/556718b2e4b02e470eb1b186/t/56ba65f8356fb040f04fb56a/1455056377419/GI+Bill+Dollars+do+not+pay+for+accredited+programs.pdf

i. Several government[6] and private reports[7] have concluded that **for-profit colleges** do not serve students well. Do for-profit colleges have lower persistence and completion rates among Post-9/11 GI Bill students than other sectors? Do for-profit colleges produce higher student loan debt levels and default rates? What are the civilian employment results for Post-9/11 GI Bill graduates? Also, what is the return on investment?

ii. Experts often claim **public community colleges** produce better results for veterans, and significant public and private funds are invested in community college programs for veterans. What are the student outcomes and civilian employment success of veterans at community colleges compared to other sectors? What is the return on investment for veterans at community colleges?

c. **Specific Colleges**: Because much of the Post-9/11 GI Bill expenditures are concentrated in a handful of colleges, it is possible to derive robust samples at those colleges, enabling an assessment of how well the colleges are serving veterans and the taxpayer investment.

d. **Type of Degree**: Are there differences in the return on investment among GI Bill students attending college degree programs (e.g., Bachelor of Science in Engineering) vs. non-degree, certificate programs (e.g., Certificate in Radiology Technology) vs. vocational/technical programs (e.g., truck driving) – taking into account the cost of the program and the resulting civilian success? (Defense Department scores of service members' skills and abilities could serve as a control when measuring post-education occupational success.) Do demographic or household income correlate with type of degree chosen?

e. **Field of Study**: Is it possible to determine program-specific outcomes, such as the return on investment of a B.S. in Engineering vs. a B.S. in Nursing, factoring in demographic and pre-education differences?

We hope the Evidence Based Policymaking Commission can take strong steps to end the siloization of federal data and ensure that federal agencies share data to benefit the public as well as policymakers.

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[6] *See, e.g.*, U.S. Senate Committee 2012 report, "For-Profit Education: The Failure to Safeguard the Federal Investment and Ensure Student Success," *available at* http://www.help.senate.gov/imo/media/for_profit_report/PartI.pdf

[7] *See, e.g.*, National Bureau of Economic Research, "Evaluating Student Outcomes at For-Profit Colleges," (June 2012), *available at* http://www.nber.org/papers/w18201

H1_2016_07
October 21, 2016 Hearing
Workforce Data Quality Campaign
Presenter: Rachel Zinn

Critical Issues for the Commission on Evidence-Based Policymaking

Statement from Workforce Data Quality Campaign

The Commission on Evidence-Based Policymaking's examination of federal administrative and survey data provides an exceptional opportunity to address the management and use of data for measuring postsecondary education and workforce outcomes. The Commission's findings and impact could lead to more inclusive, aligned and market-relevant data systems to help educators, students, employers, workers and policymakers all make more informed decisions.

Workforce Data Quality Campaign (WDQC) is a non-profit initiative that promotes inclusive, aligned, and market-relevant education and workforce data. We engage hundreds of national experts, state officials, and workforce development advocates, encouraging the use of data to ensure that all of our nation's education and training programs are preparing students and workers to succeed in a changing economy. Given our mission, we are excited about the promise of the Commission's work, and are pleased to have the opportunity to share our recommendations.

Data collected and held by the government could help to answer a range of important postsecondary education and workforce questions, such as:

- Which skilled positions are employers having a difficult time filling, and what institutions might they look to for recruitment?
- Are recent college graduates finding jobs and earning good wages?
- How much do students borrow, and can they repay these loans?
- What types of education and training pathways are helping people succeed in careers?
- Which program models are most effective at helping target populations (e.g. ex-offenders, veterans, low-income individuals) gain skills and find stable employment?
- How can workers know which short-term credentials would likely raise their earning potential?
- What job search strategies are most effective, and for whom?

In some instances, surveys have been able to answer those questions over a limited time frame, but with great effort and expense. A growing number of state longitudinal data systems are linking administrative records to answer questions. However, geographical coverage is limited, so they cannot answer questions about students who leave the state, or compare outcomes across states. The federal government already collects data through numerous administrative sources, in addition to conducting regular surveys. With improved coordination, these data could be systematically shared and linked to answer those and other critical questions for generations to come.

Issues for Action

Strides have been made in recent years, but much information remains separated between agencies because of technological, cultural, and legal barriers. WDQC encourages the Commission to recommend the following actions in its final report:

1.) **Expand access to wage information**

The Commission should examine how the federal government can build on existing data collections and facilitate the linking of employment and earnings data across higher education and training programs.

Students and workers want to know which education and training programs will help improve their chances of having successful careers. Researchers need access to more detailed and comparable data on programs to analyze which pathways are working for students and workers. Agencies at all levels of government want to know the short- and long-term employment outcomes of those they have served.

Potential relevant data sources include the National Directory of New Hires and the Census Bureau, which contain Unemployment Insurance wage records submitted by states. The Internal Revenue Service and the Social Security Administration have individual tax records. In limited instances, agencies have found ways to use these data to show employment outcomes for programs, but the federal government needs to create efficient, strategic processes for managing employment data. The Commission should consider how a federal clearinghouse could streamline employment data collections and rationalize processes for access, while protecting privacy and enhancing security.

2.) **Improve information on postsecondary progress and outcomes**

The Commission should examine ways — such as establishing a federal student record system — to measure postsecondary student progress and more effectively and efficiently answer important consumer and policy research questions.

Stakeholders do not have access to comparable information at the program level, and in many cases, only students receiving financial aid; attending first-time, full-time; or those pursuing two or four year degrees are counted. These limitations exclude non-degree credentials that are growing in number and importance, as well as the transfer, part-time, and adult students who now outnumber "traditional" postsecondary students. The Department of Education's College Scorecard and planned changes in the Integrated Postsecondary Education Data System (IPEDS) reflect progress toward providing and linking data for analysis and consumer-friendly interfaces, but the information remains scattered and incomplete. Overturning legal prohibitions on federal collection of data on individuals involved in postsecondary education and training programs, and implementing a national student record system, would allow for building a more complete picture with lower administrative burden.

3.) **Provide more accessible labor market information**

The Commission should include in its examination how labor market information (LMI) might be better integrated to provide more comprehensive and clear information.

Having access to LMI (e.g. occupational projections) may strengthen a worker's ability to make decisions about employment and training, and help to improve the alignment of education and training programs with labor market demand. The Bureau of Labor Statistics, Census, and other statistical agencies could more effectively collaborate and incorporate additional information from federal programs to enhance data about employment, worker characteristics, and the job market. If the Commission examines LMI, it should coordinate with the newly established Workforce Information Advisory Council (WIAC), which reports to the Secretary of Labor.

4.) **Harmonize definitions and metrics across federal laws**

The Commission should explore how the federal government could implement similar definitions and metrics to streamline reporting and improve opportunities for data linkages between programs.

State agencies and service providers often face the burden of having to report on program results using different definitions and measures, which increases staff time and cost. Using common definitions and metrics from the Workforce Innovation and Opportunity Act (WIOA) for other programs as appropriate, such as those operating under the Perkins Career and Technical Education Act, would reduce administrative burden, make outcomes more comparable, and facilitate coordination across human capital programs.

5.) **Clarify privacy and security protections**

The Commission should account for best practices in privacy and security as it conducts its review.

Institutional practices and changing laws at various levels of government have often created confusion around what is possible and led to blockages in sharing and linking data, even when doing so is legal. Policies and procedures recommended by the Commission should be transparent, utilize evolving best practices for data security, and ensure that publicly available data are aggregated or otherwise stripped of all information that could be used to identify particular individuals or employers. As noted by presenters in an earlier Commission meeting on privacy and security issues, the Commission should respect varying viewpoints on privacy rights. In order to strike an appropriate balance between privacy concerns and optimal use of data to improve publically-funded programs, the Commission should ensure that federal policy accounts for emerging technologies that can help protect sensitive information.

As the Commission conducts its examination, we encourage the elevation and promotion of high-quality data sources that can be used to inform human capital development policy. We hope the Commission will focus on maximizing the use of data to enhance decision-making and continually improve education and training services that allow all Americans to contribute to a 21st Century economy.

Chicago Public Input–Hearing Testimony

December 18, 2016

Rhode Island Innovative Policy Lab (RIIPL)
Brown University

Commission on Evidence-Based Policymaking Written-Statement:

On behalf of the Rhode Island Innovative Policy Lab (RIIPL), we are pleased to provide stakeholder input on the Commission on Evidenced-Based Policymaking.

The Rhode Island Innovative Policy Lab (RIIPL) at Brown University is a new collaboration between researchers at Brown University and the Office of the Governor in Rhode Island. It is a prototype innovative policy lab, centered around synergetic partnerships with State and Federal government partners to develop new policies and measure their successes. Together, RIIPL and the Rhode Island Government are using data and rigorous research to support the development of more effective public policy. The goals are to increase equity of opportunity for all Rhode Islanders through more effective policy, and provide rigorous evidence on what works for policy makers throughout the country.

In this statement, we wish to voice support for the work of the Commission on Evidence-Based Policymaking (CEP) which is part of an important movement to create a new approach to policy-making. The commission is charged with making recommendations for how data and results of research can be used to evaluate and better design government programs. At present, there are thousands of policies at the federal, state and local levels, yet little is known about their effectiveness. Efforts like RIIPL's and the CEP's are important steps in measuring what works, and implementing it to improve lives through increased policy effectiveness.

Researchers at RIIPL combine data science, behavioral science, economics and public policy in our approach to creating evidence-based reforms. We foster collaboration between scientists and practitioners to come up with real, workable and testable solutions. RIIPL also integrates education at Brown University into the research and dissemination process to change the way policy is approached in the future by training the next generation of leaders as part of the collaborative research and policy innovation process. At RIIPL, communication and collaboration between policy makers and researchers facilitate research, discovery and learning which feed directly into actionable policy innovation - the goal of evidence-based policy.

Through research-government collaboration, we are discovering what works in five key areas:

- Closing the Achievement Gap by increasing equity of opportunity so that all children, regardless of background, have the ability to reach their potential.

Rhode Island Innovative Policy Lab at Brown University
Science Library - Level 10, 201 Thayer Street, Providence, RI 02912

Page 1 of 2

- Developing Smart Social Programs with higher impact per dollar so that we can fight poverty effectively.
- Restoring Community through improved criminal justice programs which recognize that society gains most when all people are productively engaged.
- Designing Regulation that Works for business and the environment by creating transparent regulations which protect the environment and grow the economy.
- Learning from the Past by using prior policy changes to inform future decisions because we can learn from our failures and successes alike.

Together, RIIPL and the Rhode Island Government are putting data and science to work to increase equity and opportunity in society, making Rhode Island an incubator for Smart Policy and a leader in data-driven policy innovation. We support national efforts such as the CEP's work to foster and support government-research relationships and research-driven policy.

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Testimony as prepared for
Commission on Evidence-Based Policymaking
Midwest Public Hearing
5 January 2017

I am testifying today on behalf of Raise Your Hand and the Parent Coalition for Student Privacy.

Raise Your Hand is a Chicago-based grassroots parent group that advocates for high-quality public education for all students in Chicago and Illinois. We are a primarily volunteer-run organization. We formed in 2010 to work on the issue of inadequate and inequitable funding of Chicago Public Schools and have expanded to work on several other education policy areas, including student privacy.

The Parent Coalition for Student Privacy formed in 2014 and is a national coalition of parents and advocates defending the protection of student data privacy.

The Parent Coalition for Student Privacy wrote a letter in November to the Commission opposing the creation of a centralized, federal clearinghouse of the personally-identifiable information of all students, commonly referred to as a student unit-record system or national database. This letter was signed by five other groups as well, including the American Civil Liberties Union and the Network for Public Education.

The risk that a federal database of student unit records would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. In the years since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.

In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors but also their families and friends.

The US Department of Education in particular has been found to have especially weak security standards in its collection and storage of student data, and received a grade of D on the government scorecard created to assess how well federal agencies were implementing data security measures this past May.

In addition, preK-12 student data currently collected by state departments of education that would potentially be shared with the federal government include upwards of 700 highly sensitive personal data elements, including students' immigration status, disabilities, disciplinary records, and homelessness data.

As privacy advocates in the UK recently discovered, the personal information in a similar national student database that the government promised would be used only for research purposes has been secretly

requested by the police and by the Home Office, in part to identify and locate undocumented children and their families.

We are also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preschool into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

The rapid adoption of the use of digital technology in preschool through high school has been accompanied by a similarly rapid increase in the generation of data tied to individual students and collected and stored by third-party organizations. Dozens of software and hardware vendors have products in use in the Chicago Public Schools alone. The regulation and protection of the data generated by such programs remains an open question. As this data is almost always tied to a student's personally-identifiable information, it too could be connected to and at risk from a national student-record system.

There have been at least two major, known data breaches in Chicago Public Schools in the last two years. In May of 2015, 4000 students had their names, addresses, phone numbers, disability status and other personal information inadvertently shared with vendors responding to a district RFP.[1] This past fall, a CPS employee was fired for unauthorized sharing of personal information of more than 28,000 students with a charter management organization who then used the data for marketing.[2] Student data is already highly vulnerable even without a federal data clearinghouse.

In light of all these concerns, we urge you to strongly oppose the creation of *any* centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

Although I am now a full-time advocate for public education, my professional training was as a research scientist in a quantitative field, computational linguistics. As a scientist, I certainly agree that high-quality data collection is a crucial ingredient in the research process. I also know that the ethical considerations in research using data from human subjects are paramount and that well-supported conclusions can be drawn from statistical samples derived from carefully designed experiments.

We do *not* need to track every student from preschool to the workforce in order to create an efficient and successful public education system, and given the risks and costs of doing so, we should not do it.

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[1] "Data breach triggers sharing of personal info for 4,000 students" Catalyst Chicago. May 19, 2015. http://catalyst-chicago.org/2015/05/data-breach-triggers-sharing-of-personal-info-for-4000-students/
[2] "3 Noble charter staffers OK'd using CPS student data to recruit" *Chicago Sun-Times.* Dec. 23, 2016. http://chicago.suntimes.com/news/3-noble-charter-staffers-oked-using-cps-student-data-to-recruit/

If we want evidence-based policy for education, we need to put the burden on experimental design, not on our children's private data. Researchers must devise ways to test hypotheses that require the least amount possible of individuals' private data—just as we minimize the risk for physical or mental harm in clinical trials—because universal, lifelong data collection is an unacceptably unethical course of action.

I urge this Commission to consider the principles in the Belmont Report, written more than 40 years ago under the charge of an earlier federal commission, the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research: the principles of respect of persons, beneficence and justice. The creation of a national database of student records violates all three of those principles.

Once privacy is lost it is nearly impossible to restore. And so, we hold a moral and ethical obligation to our children – and our citizens -- to minimize such a risk in any way possible.

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College of Liberal Arts & Sciences

TESTIMONY

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Before the
Commission on Evidence-Based Policy Making—Public Hearing

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Introduction

Chair Abraham, Chair Haskins, and distinguished members of the Commission, thank you for the opportunity to testify before the Commission on Evidence-Based Policy. My testimony will address the goals of the commission through the lens of my personal experience as an evidence-based policy researcher.

I have the following observations for the committee: <u>First, evidence-based policy is critically important for the efficient allocation of government resources.</u> The Commission's report, *Using Administrative and Survey Data to Build Evidence*, provides several examples of how administrative and survey data have informed policy. I highlight some of my contributions to policy in this testimony.

<u>Second, evidence-based policy is easier said than done. In my experience, evidence-based policy only takes place when policy-makers initiate the process.</u> When researchers approach

government agencies with a request to use administrative or survey data in ways that stray from the norm, the barriers to using these data become insurmountable.

Third, to the extent that states gain more control over administering federal programs (for example Temporary Assistance to Needy Families), obtaining permission to use state data and the complexity of state policies will raise additional barriers to evidence-based policy. State governments do not typically have the resources or expertise to maintain high-quality data. Some states, such as Wisconsin, have worked closely with researchers to understand policy. The Institute for Research on Poverty at the University of Wisconsin-Madison has had access to state child support data for years, and assisted the state with improving child support payments. The Texas Schools project, based at the University of Texas-Dallas has longitudinal student data and is a model for providing access to researchers. North Carolina, Florida and Michigan have also shared student data with researchers. However, these states are the exception in granting access to researchers.

Finally, I have two recommendations for the Commission: First, the Commission must think carefully about the incentives for policy makers to support evidence-based policy. Second, I recommend that a series of experiments be conducted with federal agencies to incorporate evaluation of current programs and research design in new programs in order to evaluate their effectiveness. I am not convinced that every program requires a randomized controlled trial before implementation. However, quasi-experimental designs, field experiments, and good "old fashioned" data analysis with administrative data can go a long way towards informing policy. Once the "proof of concept" has been established and refined, then evidence-based policy could be more widely implemented across the government.

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In the testimony that follows, I will provide a brief overview of my work related to evidence-based policy, describe my experience with the barriers to using administrative and survey data, discuss successful examples of evidence-based policy, and provide recommendations to the Commission on policy-maker incentives and research design in program evaluation.

Research Related to Evidence-based Policy

I am a proponent of the concept of "Big Data to Knowledge,"[1] and my research and the work of the Center for Science, Technology & Economic Policy is united by our approach of linking several data sources together to create big/complex data that yield insights that are greater than the sum of its parts. I have received several federal and foundation grants for work in the interdisciplinary field of the Science of Science and Innovation Policy (SciSIP). At the core of Science Policy research are two related economics questions: 1) How should the federal government allocate scarce research and development resources to maximize economic growth and development? 2) What is the return on the federal government's research and development investments? My research contributes to the study of science policy by examining the allocation of grant funding, gender and race/ethnicity differences in academic careers, and scientific entrepreneurship and innovation. I was also the principal investigator on the NSF grant to fund

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[1] Big Data to Knowledge (BD2K)—an initiative started by the National Institutes of Health in 2012 that is related to some of the goals of the Commission on Evidence-Based Policy. According to the NIH: "The BD2K initiative addresses four major aims that, in combination, are meant to enhance the utility of biomedical Big Data: 1) To facilitate broad use of biomedical digital assets by making them Findable, Accessible, Interoperable, and Reusable (FAIR); 2) To conduct research and develop the methods, software, and tools needed to analyze biomedical Big Data. 3) To enhance training in the development and use of methods and tools necessary for biomedical Big Data science. 3) To support a data ecosystem that accelerates discovery as part of a digital enterprise." https://datascience.nih.gov/bd2k/about.

the Kansas City Research Data Center,[2] one of the twenty-four Federal Statistical Research Data

Centers.

Under my direction, the Center for Science, Technology & Economic Policy (CSTEP) at

the Institute for Policy & Social Research at the University of Kansas has undertaken several

"big data" projects. Between 2010 and 2015, CSTEP was the administrative home of the

Kansas City Area Education Research Consortium (KC-AERC), an education research

consortium modeled on the University of Chicago Consortium of School Research. Unlike the

Chicago Consortium that has researchers from one university working with one school district,

KC-AERC consists of a multidisciplinary team of researchers from the University of Kansas, the

University of Missouri-Columbia, the University of Missouri-Kansas City, and Kansas State

University who work with the 32 Kansas City-area school districts in both Kansas and Missouri

to conduct data-driven education policy research and evaluation. CSTEP has also received

contracts from the Kansas Board of Regents (KBOR) to match KBOR enrollment and graduation

records for all public community colleges, technical colleges and four-year universities in the

state to employment records from the Kansas Department of Labor in order to analyze the

efficacy of KBOR programs.

In what follows, I share the lessons I have learned from working on policy-relevant

research using administrative and survey data from multiple governmental entities. The barriers

to obtaining data for evidence-based policy are significant and in some cases, insurmountable.

However, when researchers become "trusted partners" with policy-makers, the evidence

generated by administrative data is persuasive, and policies do change. Two projects illustrate

the barriers and successes I have encountered.

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[2] "Kansas City Research Data Center." National Science Foundation SES-1359527.

A Tale of Two Projects

Barriers. In 2004, the National Science Foundation (NSF) funded my proposal: "Gender Differences in Employment Outcomes for Academics in Science and Social Science" SES-0353703. This grant proposed to merge publication data from Thomson-ISI's *Web of Science* onto the NSF's Survey of Doctorate Recipients (SDR) in order to examine whether productivity differences explain the gender gap in salary and promotion in academia. The SDR is a biennial, longitudinal survey that collects information on demographics, education, employment and earnings of U.S. trained doctorates in science, technology, engineering and mathematics (STEM) fields. Although the grant was funded in 2004, the creation of the SDR Productivity Database has been a work in progress ever since.

Essentially, a proposal to merge SDR data with other data sources puts legitimate research of importance to Congress[3] at odds with the Confidential Information Protection and Statistical Efficiency Act (CIPSEA) of 2002.[4] It took until 2006 for NSF to establish a policy to permit matching SDR data with other sources. In 2008, the NSF funded a research conference, "Collaborative Research: Workshop on linking NSF SED/SDR Data to Scientific Productivity" SRS-0725475 which brought together researchers interested in using the SDR Productivity data, statistical experts on linking data sets, and staff from the NSF Division of Science Resource Statistics to discuss the issues involved in creating the data with the least amount of matching error, ensuring its confidentiality, and providing access to the research community.[5] Between 2006 and 2009, I drafted several versions of the data-matching proposal, and ultimately in 2010

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[3] This section of the testimony is an update of my testimony before the Subcommittee on Research and Science Education of the U.S. House of Representatives on the *Fulfilling the Potential of Women in Academic Science and Engineering Act of 2008.* May 8, 2008.

[4] One NSF staff member initially responded to my request to link publication data to the SDR by saying, "No, I could go to jail if we were to do so." This is presumably a reference to provisions in CIPSEA.

[5] Information from this conference is available at http://www.albany.edu/~marschke/Workshop/. The Division of Science Resource Statistics was renamed the National Center for Science and Engineering Statistics.

the National Center for Science and Engineering Statistics (NCSES) at NSF took over the

funding and oversight of matching publications and patents to the SDR.

   The creation of the SDR Productivity Database is still a work in progress, twelve and

half years later. I could not complete the proposed work in my original NSF grant, and I have

three projects that are still waiting on the data. The data have been matched and NCSES is now

reviewing the data quality before releasing it to researchers; something I hope will happen in

2017. However, NCSES dropped two-thirds of the SDR longitudinal panel between 2013 and

2015 waves of the survey, reducing the quality and viability of the SDR for future research, and

creating another barrier. It remains to be seen whether the SDR data are useful for my research

purposes beyond the 2013 wave.

   Successes. In 2008, I was contacted by Thomson Reuters/Discovery Logic (a contractor

for NIH) about assisting with a project to examine the diversity of NIH-funded researchers. The

NIH provided our research team with every variable I requested from NIH's IMPAC II

administrative database on over 88,000 NIH R01 grant proposals from 2000-2006 to examine

race/ethnicity differences in NIH funding. In the process of creating these data, our research

team linked publications and bibliometric measures for the principal investigators to the grant

proposals. Ironically, the work I proposed to do with the SDR, I was allowed to complete for the

NIH.

   The resulting paper was published in *Science*: "Race, Ethnicity, and NIH Research

Awards" was co-authored with Raynard Kington, former Deputy Director of the National

Institutes of Health, Walter Schaffer in the Office of the Director at NIH, and colleagues at

Thomson Reuters/Discovery Logic. Our study found that Asians were 4 percentage points and

black or African-American applicants were almost half as likely (13 percentage points) to

receive NIH investigator-initiated research funding compared to whites. After controlling for the applicant's educational background, country of origin, training, prior research awards, publication record, and employer characteristics, we found that black applicants remained one-third less likely (10 percentage points) than whites to be awarded NIH research funding.

The findings in Ginther et al. garnered significant media attention and changed NIH policy. As a result of the study, NIH Director Francis Collins appointed the Advisory Committee to the Director Working Group on the Diversity in the Biomedical Research Workforce. Based on the findings of the Working Group, NIH made a $500 million, ten-year commitment to improve diversity through increasing the number of underrepresented minorities who study biomedicine (Building Infrastructure Leading to Diversity) and creating a national mentoring network (National Research Mentoring Network).[6] NIH also hired a chief officer for Scientific Workforce Diversity.

Why did the NIH project change policy while the NSF project still languishes? The NIH study was initiated by a policy-maker, Raynard Kington, who at the time was Deputy Director of the NIH. Institutional support yielded immediate data access. In contrast, in 2004 I was a relatively unknown researcher asking permission to link data to the SDR shortly after a federal law made this type of request open to interpretation. No bureaucrat has ever lost his or her job by saying "no" to a researcher request. <u>Thus, in my experience, when the study is proposed by the policy-maker, access to the administrative data will be forthcoming.</u>

Evidence-based policy at the state and local levels. This iron-law of evidence-based policy research has played out again and again in my experience. In 2009 we started the Kansas City Area Education Research Consortium with the goal of creating a data repository for all

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[6] NIH BUILD: https://www.nigms.nih.gov/training/dpc/pages/build.aspx. NIH NRMN: https://www.nigms.nih.gov/training/dpc/pages/nrmn.aspx.

Kansas City metropolitan school districts using the state longitudinal data systems (SLDS). But our vision for a data repository for Kansas City metropolitan area schools has never been realized, because the state departments of education in Kansas and Missouri did not trust KC-AERC as partners. In the case of Kansas, KC-AERC researchers obtained student-level data on two occasions for specific projects. In the case of Missouri, KC-AERC researchers developed a measure of teacher-value added using student-level data, only to have access to those data rescinded after the project was completed.

Despite our failure to develop lasting partnerships with the state departments of education, over time school districts learned about KC-AERC and started hiring us to conduct evaluation projects. As we became trusted partners, school districts provided administrative data to KC-AERC to evaluate a number of different programs.[7] The same has been true in our work with the Kansas Board of Regents. We have received funding for several contracts to link KBOR data to employment and earnings records in Kansas, evaluate the efficacy of adult basic education, high school technical education, and the graduation rates of community college transfer students. From the perspective of state and local policy-makers, "qualified researchers and institutions" need to be known, trusted, and local. Research studies based on other school districts or states do not have external validity for state and local policy-makers.

States are even wary about sharing data with the federal government: Kansas was the last state to sign an agreement with the US Census Bureau to allow its data to be incorporated in the LEHD. Currently states review all proposals related to using their LEHD data and retain the right of refusal for these projects. In addition, when 50 state governments make myriad changes to state-administered federal programs (e.g. TANF), the policy environment becomes very complex, very quickly. I have a new project that proposed to examine the impact of TANF

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[7] See current projects at www.kcaerc.org.

policy changes. Welfare reform happened twenty years ago, but there are very few studies that have traced the impact of state TANF policy changes since then, in part because it is a very difficult and complicated policy environment to study. To the extent that other federal programs are block-granted to the states, our ability to understand how these policies affect outcomes may be severely compromised because so many state policies will be changing all at once.

Recommendations for the Commission

I offer two recommendations to the Commission. First, policy-makers are the key to implementing evidence-based policy. Thus, the Commission needs to think carefully about how to align the incentives for policy-makers to share their data and be receptive to findings. After completing the NIH study of race/ethnicity differences, I spoke with administrators in another science funding agency about conducting a similar study. These administrators declined my offer. Assuming that the Commission is successful in breaking down legal and administrative barriers, risk aversion on the part of policy-makers will remain a stubborn obstacle.

Second, I recommend that a series of experiments be conducted with federal agencies to incorporate evaluation of current programs and research design in new programs in order to evaluate their effectiveness.   In particular, I recommend that the Commission work with the science funding agencies (NIH and NSF) to develop prototypes for evaluating existing programs and incorporating evaluation into the design of new programs. I suggest the science agencies, because they will be predisposed to using evidence-based approaches to understanding their programs. I suggest these experiments and prototypes since it is useful to have evidence to support building evaluation into program design. I will provide some examples of how this might work using current programs that I am familiar with at the NIH.

After we published our paper in *Science*, NIH announced the Early Career Reviewer (ECR) program,[8] motivated by our finding that individuals who served on NIH study sections were more likely to receive NIH funding. However, our analysis did not demonstrate that serving as a reviewer had a causal effect on funding. NIH would know the causal effect of serving as a reviewer now if ECR applicants were randomly assigned to an ECR treatment or control group *when the program was started*.   These types of policy experiments could take two or three years to evaluate, but it would be useful to know whether the program works as expected instead of implementing the policy and hoping for the best.

NIH has also been concerned that the age of obtaining the first R01 grant has increased, and it created policies to maintain award rates for new investigators that were similar to experienced investigators.[9] This policy has been in place since 2008, and it would be possible to use quasi-experimental methods to evaluate whether NIH new and early stage investigator programs had the desired effect.

Conclusion

Chair Abraham and Chair Haskins, once again I thank you for this opportunity to testify today. I believe that evidence-based policy is critically important to the efficient allocation of governmental resources.   However, evidence-based policy is much easier said than done because policy-makers are the gatekeepers to their data. Evidence-based policy analysis cannot take place without the support of policy-makers. Thus, I encourage the Commission to consider ways to align policy-maker incentives to facilitate the goals of data access and robust evaluation. Finally, I recommend a series experiments be conducted with federal agencies to incorporate

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[8] https://public.csr.nih.gov/reviewerresources/becomeareviewer/ecr/pages/default.aspx.
[9] https://grants.nih.gov/policy/new_investigators/index.htm.

evaluation of current programs and research design in new programs to demonstrate the

effectiveness and build support for evidence-based policy.

December 20, 2016

**Statement and Recommendations Concerning
Commission on Evidence-Based Policymaking**

by

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The following comments are related to comments submitted on behalf of the Population Association of America (PAA) and the Association of Population Centers (APC) on November 14, 2016. Nonetheless, all of the views and opinions expressed below are my own and ones I support.

Let me begin by applauding passage of the Evidence-Based Policymaking Commission Act of 2016, which created the bipartisan Commission on Evidence-Based Policymaking and charged this Commission with:

- determining how to integrate administrative and survey data and to make those data available to facilitate research, evaluation, analysis, and continuous improvement while protecting privacy and confidentiality;

- recommending how data infrastructure, database security, and statistical protocols should be modified to best fulfill the integration and increased availability of data as described above;

- recommending how best to incorporate rigorous evaluation into program design; and

- considering whether a federal clearinghouse should be created for government survey and administrative data.

In what follows, I focus my comments on two related issues: the data infrastructure to support evidence-based policy analysis and the importance of insuring access to these data for qualified researchers, both within and outside of government.

A. *There are important benefits to the use of administrative data, especially when linked, for conducting policy-relevant research.* Administrative records have been used in a variety of research areas and provide an essential source of data for conducting important policy-relevant research. For example, such records have been used to study participation in and impacts of social programs (e.g., welfare programs, manpower training, food stamps, the earned income tax credit, etc.) on various outcomes. Often these outcomes are measured with linked administrative data, such as wage earnings (from linked unemployment insurance wage records), health conditions (from linked Medicaid records) or fertility (from linked birth certificate records). The availability of administrative records from federal, state or local sources provide a cost-effective way of supporting evaluations of these programs, regardless of whether the evaluations made use

of randomized designs for allocation of program participants to different "treatments," or other studies that have made use of non-experimental designs.

But social program evaluation is not the only place where administrative records can and will be the primary source of data to monitor particular programs and/or evaluate particular policies or "treatments." Furthermore, they do not only use government records. Here I reference two examples. First, biomedical research, including research that is relevant to policies affecting health-related behaviors, such as smoking bans or regulation of the nutritional content of foods, uses increasingly electronic health records (EHRs) from public and private health care systems to measure the health effects of variation in such policies. Second, administrative records from private firms that construct credit scores for use by financial institutions have been used by researchers, including the research division of the New York Federal Reserve Bank, to monitor and conduct policy-relevant research on student loan debt in the U.S. In both of these areas, administrative records support important policy-relevant research in a way that is both cost-effective and potentially more accurate than data collected via other means, e.g. surveys.

B. *At the same time, there are important legal and other constraints that limit the use of administrative records and the ability of researchers to link records across different sources of these records.* In particular, different sources of administrative data are subject to varying and divergent laws and regulations that can inhibit their use. For example, administrative records from social programs administered at the state or local level (e.g., TANF programs) are often subject to laws and regulations that make it hard for one agency to share their records with another agency. And, as noted in the NRC report on the Reengineering of the Survey of Income and Program Participation (SIPP), existing state laws that cover the privacy and access of administrative records from TANF, Medicaid, unemployment insurance, and the workers' compensation programs make it very difficult, if not impossible, for these programs to share their data with the Census Bureau (or other) surveys like the SIPP.[1]

Historically, this issue has complicated the conduct of biomedical research that makes use of electronic (or non-electronic) health care records of individuals as institutional review boards (IRBs) have required studies to obtain informed consent from subjects in these studies for any follow-up use of subjects' EHRs and/or updating of these records. Recently proposed revisions to the Common Rule[2] will reduce and/or eliminate this re-consenting requirement for certain types of studies and types of administrative records so long as subjects are provided with a clear statement regarding potential future use of administrative records as part of their initial consent process. Many population scientists welcome this change and suggest it may represent a model for the Commission to examine as it considers how to facilitate access to records like EHRs while still providing participants with the opportunity to make informed decisions about research access to their records.

More generally, I strongly urge the Commission to investigate the various laws and regulations

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[1] Constance Citro and John Karl Scholz, eds., *Reengineering the Survey of Income and Program Participation*, National Research Council, 2009. [NOTE: I served as a member of the NRC expert panel that developed this report.]

[2] HHS–OPHS–2015–008, Federal Policy for the Protection of Human Subjects, *Federal Register*, 80(173), Sept 8, 2015, 53933-54058.

governing access to administrative records for research purposes. In particular, I encourage the Commission to look closely at the laws affecting access to state and local government data and policies restricting record linkage across various federal agencies.

C. *To facilitate the conduct of evidence-based, policy-relevant research, I encourage the Commission to examine and improve access to administrative records to qualified researchers outside and inside the government.* I understand and appreciate that there are important confidentiality and security concerns that necessarily limit access of researchers to various types of government-based administrative records and/or restricted-use data sources. Furthermore, I appreciate why restrictions on the access of non-governmental researchers may need to be different, and possibly more restrictive, than that applied to researchers employed by authorized government agencies. But, at times, these restrictions have made access to such data very difficult for academic and non-governmental researchers.

Over the last 20 years, U.S. statistical agencies, initially led by the U.S. Census Bureau, have made great strides in improving access to restricted-use versions of federal data sources through the Federal Statistical Research Data Centers (RDCs) program. This program now allows access to data products from 12 different federal statistical agencies for qualified governmental and non-governmental researchers in 20 different centers around the country. While some the research covered by the data agreements approved for use of these centers is often not directly related to policymaking, much of it is.

A similar effort for providing access to data from the Internal Revenue Service (IRS) under the Joint Statistical Program of the Statistics of Income (SOI) Division of the IRS has enabled qualified researchers to submit proposals for access to IRS data and to link it to various data for research purposes. This program has facilitated a number of highly visible and widely cited lines of research by Professors Raj Chetty (Stanford) and Emmanuel Saez (UC Berkeley). For example, Chetty and co-authors analyzed the association between income and the life expectancy of individuals in the U.S. since 2000 by linking IRS tax records on income with Social Security Administration death records.[3] The findings of this research, especially the finding of differences by area in the associations of longevity by income, raises important questions about the sources of these disparities and how to alleviate these differences. Such research could not have been conducted without this program.

A large body of research shows that geography (e.g. neighborhoods) affects the social and economic well-being and health of individuals and families. But, state and local policymakers, researchers, and program officials often lack the data needed to measure differences in community environments, to isolate how neighborhood characteristics shape micro-level outcomes, or to test the efficacy of neighborhood-level interventions. Most survey data files lack such key contextual information, while most administrative data lack key demographic, socioeconomic, behavioral, and outcome information. While individual-level record linkage of survey and administrative data could provide such critical data for state and local-level evidence-based policymaking, most state and local researchers/program evaluators lack the resources to submit proposals and conduct these types of linkages and research within a RDC. The

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[3] Chetty, R. et al. (2016). "The Association between Income and Life Expectancy in the United States, 2001-2014, *Journal of the American Medical Association*, 315(15): 1750-1766.

Commission should also encourage statistical agencies and other researchers to create spatially-linked administrative and survey data that could be provided to state and local researchers/program evaluators outside of RDCs to increase evidence-based policymaking at the state and local level.

I call on the Commission to encourage expanding access of data and records from federal, state and local sources to qualified non-governmental and governmental researchers. This expansion should include state and local government researchers, whose access to data can provide support for accurately assessing needs, creating programs to address those needs, and delivering services in more cost-effective ways. While such efforts may include expanding the RDC and/or IRS's Joint Statistical Programs or similar programs, they should also include expanding access to spatially-linked administrative and survey data that could be provided outside of RDCs. Efforts also may include providing more funding for merit-based grants to undertake these projects, especially in light of the limited resources available to researchers in local governments and those working in non-governmental settings.

I also encourage the Commission to consider recommending any necessary legal revisions that would allow federal statistical agencies to share data with researchers conducting evidence based research. For example, the Census Bureau's authorizing regulation, Title 13, does not explicitly recognize the use of sensitive data for conducting scientific research, be it policy-relevant or not, as a "benefit to the Bureau." Rather, Title 13 only supports data access to improve the quality of Census (and other) data products. A more explicit acknowledgment that qualified research projects can be conducted for scientific purposes would allow Census to approve studies using confidential data that are primarily designed to replicate existing studies and/or determine the robustness of findings from previous research. Such changes would help ensure the legitimacy of research uses of these data and give greater credibility to the findings based upon these data.

D. *I encourage greater attention be given to the population representativeness of the policy-relevant research produced using administrative records and population-based surveys to better assess and characterize the population-representativeness of findings from administrative data.* Many studies use administrative records to "evaluate" the impact of some particular policy or program. As I have argued above, the administrative records provide a potentially cost-effective way of conducting such evaluations—particularly when compared to the alternative of collecting survey data that is collected from a sample representative of the population relevant for the study. But such benefits of using administrative records in evaluative research does not mitigate the importance of assessing the sampling properties of this data source.

Consider the following example regarding the design of the Precision Medicine Initiative (PMI). One of the key components of the PMI's initial plan is to assemble a million-person sample of individuals who would provide access to their Electronic Health Records (EHRs) as a condition of the study. Access to EHRs on this large sample would provide data to study a wide range of health conditions, including conditions that are relatively rare and only affect population subgroups. One of the study's recruitment strategies was to use social media and other methods to attract participants who would grant access to their EHRs and undergo one or more physical examinations.

While the goals of the PMI are important and have the potential to provide evidence-based assessments of health conditions relevant for U.S. health policy, population scientists and other

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social scientists are concerned about lack of attention to the properties of what amounts to a "volunteer" sample of people with EHRs, even if the sample includes data on one million participants. In public comments, PAA and APC raised these concerns and strongly suggested that the NIH leadership consider using existing population-based health studies to form at least part of the PMI cohort to assess the population-representativeness of the recruitment strategy based on volunteers. In developing both policies and best practices for policy-relevant research, I encourage the Commission to advocate for the designs of data collection that explicitly account for the sampling properties and population-representativeness of its studies.

Lastly, I encourage the Commission to ensure that population-representative data sources collected by the Federal government continue to be viewed as an important source of data for policy-relevant research, both as a way to monitor behaviors and phenomena relevant to public policy. For example, data sources like the Current Population Survey (CPS), the American Community Survey (ACS) and the Survey of Income and Program Participation (SIPP) all play roles in the monitoring and implementing public policy in the U.S. The CPS is the population-representative data that enables the BLS to construct estimates of unemployment and labor force participation rates of the U.S. population on a monthly basis. The ACS provides data on poverty rates at the lowest levels of geography, such as school districts and communities, which are used to allocate funding for programs such as the USDA's National School Lunch Program and State Children's Health Insurance Program (SCHIP). The SIPP has facilitated a broad range of research on the distribution of income and participation in a range of social programs using a survey that is designed to be population representative for most states in the U.S. These surveys, and others, are important components of the U.S. data infrastructure and are needed to support evidence-based policymaking.

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**Comments to the Commission on Evidence-Based Policymaking
from Virginia Knox, MDRC**

January 5, 2017

My name is Virginia Knox, and I am the Director of the Family Well-Being and Children's Development Policy area at MDRC. We're a nonprofit, nonpartisan education and social policy research organization dedicated to learning what works to improve policies and programs that affect low-income individuals and families.

The ideas I'll outline today are laid out at greater length in written comments that MDRC submitted to the commission in November. MDRC hopes to see the Commission use its mandate to recommend that the federal government put rigorous evidence at the center of policymaking.

My comments will briefly outline six of the elements we see as necessary to achieving that goal:

- Validate the role of third-party evaluations

- Create a culture of continuous improvement

- Build on tiered evidence strategies

- Embed evidence within existing funding streams

- Improve access to administrative data (while acknowledging its limitations)

- And protect data confidentiality.

First is to validate the role of independent evaluation of programs and policies in the federal government: Evaluation findings that are credible, relevant, accurate, and timely are critical for policymakers and practitioners to make informed decisions about how to spend the resources of government. This is an issue of particular urgency in a time of budget constraints and fiscal austerity.

Second -- Create a culture of continuous improvement: Rather than being focused on up-or-down judgments about programs or policies, government should continue to develop incentives for using research evidence to make programs more effective over time. A good example is the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program, a large evidence-based federal initiative that has several elements

worth emphasizing:

- Rigorous prior evidence is being used to influence how federal funds are spent, making it more likely that the funds will make a difference for families.

- The legislation recognizes that innovation is important for any field to keep advancing, and offers states a subset of funds to test new approaches.

- Funds were also set aside for research to make sure that learning continues under MIECHV and can influence future realizations of home visiting.

Third -- Build on the tiered evidence strategies embodied in the Investing in Innovation Fund at the Department of Education, the Workforce Innovation Fund at the Department of Labor, the Teen Pregnancy Prevention Program at the Department of Health and Human Services, and the Social Innovation Fund at the Corporation for National and Community Service. These funds set clear guidelines about standards of evidence and provides incentives for both innovative new programs and for testing the scaling of models with evidence of effectiveness — which we see as truly the next frontier in the evidence-based policymaking agenda.

Fourth -- Embed evidence within existing funding streams: As the MIECHV example illustrates, when we have evidence of what works, we should build incentives into current funding streams to make sure that dollars follow the evidence. And while the innovation funds have been a source of effective new ideas for a given field, incorporating resources for research *within* major program funding streams would allow federal agencies to develop evaluation agendas that focus on continuous improvement of existing programs.

Fifth - Improve Access to Administrative Data

In evaluating the effectiveness of social programs, agencies and the researchers who evaluate their programs need ready access to administrative data. At the same time, access to administrative data is not a panacea, so we shouldn't dismiss the importance of surveys and other types of data.

There are at least four factors that affect the fit of administrative records for a given research study.
- Access – The process of gaining permission and approval to use the admin data may be cumbersome and expensive
- Standardization – if there are multiple sources of admin data and they are all in different formats, then the researcher will have to spend considerable time standardizing it before she can conduct the needed analysis
- Completeness - administrative records often do not include all the data required to answer important questions
- Data Lags - Federal data sets like the National Directory of New Hires or tax records can have very long lags before the data are assembled, cleaned, and available for use in a study. This has significant implications for timeliness and

limits the use of administrative data in quick-turnaround studies with multiple follow-up periods.

My sixth and final point is about protecting confidentiality.

There are a number of important tensions that underlie this high stakes issue. As an example, Congress is considering amending The Family Education Rights and Privacy Act (FERPA) because of concerns over threats to the privacy of student data, originally prompted by public outcry over educational technology vendors and their use of children's information for advertising and commercial gain. Unfortunately, education researchers from academia and other nonprofit institutions have gotten swept up in the furor.

Under current federal law, education agencies can share data with researchers only for research projects designed to benefit students and improve instruction — and only under extremely strict privacy conditions. But some are suggesting that Congress should significantly scale back even that authority. Indeed, many states are interpreting FERPA to preclude the sharing of any individually identifiable data with researchers, even though that data would only be reported in aggregate form for policy purposes. Without access to student data, little education research could be conducted at all. The bottom line is that it's essential to continue to protect the security and privacy of student data, but we must be careful to not unintentionally end the analysis of student data for its original purpose: assessing and improving education.

This is just one example of how we need to protect the privacy of data for people who participate in studies, while still making it possible to use available data to improve social policy.

Thank you for allowing me this time to provide input from MDRC into the important work of the commission.

Sincerely,

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Commission on Evidence-Based Policymaking
Hearing, Chicago, January 5, 2017

Submission from: Institute for Social Research, University of Michigan, P.O. Box 1248, Ann Arbor, MI 48106-1248. Contact: Margaret Levenstein, Director, Inter-university Consortium for Political and Social Research and Research Professor, Institute for Social Research, MaggieL@umich.edu.

The University of Michigan's Institute for Social Research (ISR) is pleased to present the comments below for consideration as the Commission deliberates to expand access to and the use of government data for the purposes of building evidence-based evaluation of program and policy outcomes while concurrently protecting the privacy and confidentiality of the citizens and organizations studied. There are several general principles that we believe should guide the Commission as it examines opportunities to build and evaluate evidence-based programs and policies with administrative and survey data. These principles are woven throughout our comments to the Commission's questions below and are summarized as follows:

- Confidentiality of individual data and the independence of the federal statistical system must remain paramount. Participation in our federal data programs, whether they collect survey or administrative data, is premised on the promise that individual data will remain confidential and will be used for statistical purposes only. It is never to be used for enforcement purposes or for the benefit of particular commercial or political interests. Confidence in the estimates produced by our federal statistical system requires adherence to these principles at all times. As articulated in the Office of Management and Budget's Statistical Policy Directive No. 1 (2014), it is critical to "Protect the trust of information providers by ensuring the confidentiality and exclusive statistical use of their responses. Maintaining and enhancing the public's trust in a Federal statistical agency's or recognized statistical unit's ability to protect the integrity of the information provided under a pledge of confidentiality is essential for the completeness and accuracy of statistical information as well as the efficiency and burden of its production." This is just as true when administrative data is re-purposed for statistics. Undermining this trust undermines statistical measurement as well as the effectiveness of the programs upon which the statistics are based.
- Two important steps to uphold these principles and assure the independence and reliability of the estimates produced by our federal statistical system include the following:
    a. Data originally generated outside the federal system, either from state and local, commercial, non-profit, social media, web-based, or other programs, should be aggregated outside the federal system. These data can be cleaned and documented, and secure, confidentiality-protecting crosswalks to PII can be created. Data can then be transferred to the federal statistical system for matching to federal data resources. This will preserve respondent and data provider confidentiality and increase confidence in the security of the system. It

also provides a mechanism for state and local civil servants and third-party (e.g., academic researchers) to access the non-federal data in a secure environment without burdening the federal research data system and its supporting security clearance mechanisms. This is the model that has been adopted by the Institute for Research on Innovation in Science (IRIS) in its collaboration with the Census Bureau's Innovation Measurement Initiative. This model leverages the expertise of those outside the federal statistical system to improve, harmonize, and document the non-federal data. This kind of expertise is often lost or reduced when data are moved exclusively inside the federal statistical system.

b. Data generated by federal agencies and programs will almost surely be legally required to stay within the federal firewall. These data should be made available systematically (promptly, with transparent access procedures, and where there is no or limited documentation, with a mechanism for researchers to contribute to the data and documentation). This will harness the energies and expertise of researchers to improve the data resources of the federal statistical system as well as state-of-the-art analyses of policies in order to assure that the inference drawn from evidence is scientifically sound. This also assures that there is competition in program analysis, so that multiple approaches can contribute to the analysis and program evaluation. The Federal Statistical Research Data Centers are an important mechanism for providing researcher access to these data, but, given the significant ongoing hurdles to their use, they should not be the exclusive mode for researcher access.

Collaborations between federal agencies and academic organizations can help to address several challenges in using administrative data for evidence-based policy making. First and foremost, collaboration with multiple, external academic organizations can help to assure data availability without excessive centralization that might compromise Americans' right to privacy and security in the data that is generated by and about them in the course of their interactions with federal and state agencies. Second, collaboration between the federal government and academic organizations can bring to bear the efforts of the large number of faculty and students who would be willing to work to improve administrative data. This is particularly important as administrative data, like other non-design data, require significant investments in cleaning and documentation to assure that the target measurement concept is what is actually being measured. Third, those same academic collaborators bring with them expertise in both measurement and analysis that contributes to the scientific rigor of the policy analysis. Fourth, collaboration with academic and other research organizations increases the likelihood that multiple analytical approaches are considered, avoiding any tendency for monolithic or even self-serving analysis. Finally, this kind of collaboration develops skills, both on the part of the civil servants on whom we rely for producing the critical statistical resources of our country and and on the part of students who are the next generation of scholars and civil servants. This kind of collaboration will produce a generation of students who better understand the challenges of measurement and policy-relevant analysis as a result of their participation in such a

collaboration.

For example, the Institute for Research on Innovation and Science (IRIS), a collaboration of approximately 50 universities based at the Institute for Social Research (ISR) at the University of Michigan, provides an excellent model in which universities (mostly state, but also private) have voluntarily chosen to share confidential, proprietary data, including individual identifiers, with a federal statistical agency for the production of new estimates of the impact of national investments in research and development. IRIS has developed the capacity to ingest, harmonize, and de-identify transaction-level data from its member institutions. It uses these data to produce reports back to its members, restricted datasets available to the research community, and datasets that it transmits to the U.S. Census Bureau for linkage to Census data assets. The Census Bureau produces additional estimates and reports from these linked datasets, and makes the linked data available to qualified researchers with approved projects in the network of Federal Statistical Research Data Centers (FSRDCs). This model has been able to achieve the participation of a large number of institutions, systematic access for the research community, and a more valuable research dataset than was the case for an earlier initiative strictly within the federal government. These data provide the basis for an evidence-based evaluation of a wide range of federal and private programs investing in science and academic R&D. IRIS's model leverages the interest and abilities of the research community to analyze these data as well as leveraging the existing data resources of Census Bureau and the computing resources of the FSRDCs.

In another initiative, in this case between the Institute for Employment Research (IAB) of the German Federal Employment Agency (BA) and the University of Michigan's ISR, now expanded to five other U.S. universities and locations in the UK and on the Continent, hundreds of researchers have contributed to the analysis of German labor market reforms through their access to restricted, linked survey and administrative data.   These initiatives demonstrate both the feasibility and the value of academic-government collaborations in overcoming the challenges to creating appropriate data infrastructure and harnessing scientific expertise to analyze those data for evidence-based policy evaluation.

State and local governments produce large amounts of administrative data on programs that they implement, whether funded locally or by the federal government. State and local civil servants have important expertise and knowledge about the operations of these programs and, therefore, the meaning of the administrative data generated by them. They often lack the data or statistical scientific expertise or computing environments in which to analyze or link these resources. Partnerships between state and local governments, federal governments, and academic institutions can provide the relevant training while developing data resources of value to all parties for evidence-based program evaluation.

We recommend two complementary approaches to providing security and assuring privacy. One is to take steps to assure that the data are safe. This can be achieved through traditional anonymization methods (aggregation, suppression, swapping, and noise infusion), data

encryption, and the creation of fully or partially synthetic data. The other is to take steps to to assure that the researcher who analyzes the data is safe and is working in a safe computing environment. This is achieved through researcher training and credentialing, scientific peer review and pre-registration of research proposals, and the use of secure computing environments, such as virtual or physical research data enclaves. These two approaches are complementary. Many tasks associated with the work of turning administrative datasets into useful analytical datasets, including data cleaning, the production of metadata, and dataset linkages, can only be accomplished with access to identifiable data. This then requires secure computing *and* a system for training and vetting researchers. The UK's Administrative Data Research Service has made steps in the direction of researcher training and credentialing. The European Union's Data Without Boundaries project envisioned a researcher "passport" to facilitate credentialed access across the European statistical agencies. The Sloan Foundation has recently supported the Inter-university Consortium for Social and Political Research (ICPSR) to build on these earlier projects to establish durable researcher credentials for access to confidential data.

Exploiting the potential power of administrative and survey data for evidence-based policy and program evaluation requires that both government and non-government analysts are able to discover appropriate data resources and gain access necessary to analyze these data effectively. To address these needs, an infrastructure characterized by rich metadata about administrative and survey data sources, a secure platform for researchers to analyze datasets held in other locations, and a standardized and broadly accepted system of researcher credentialing must be developed. The existing network of Federal Statistical Research Data Centers provides an important mechanism for non-governmental researchers to contribute their expertise to the challenges faced by the federal statistical system and to the evaluation of programs.

- The adoption of standardized researcher credentialing, accepted by multiple federal statistical agencies, similar agencies in other countries (such as the German IAB and UK Data), and non-governmental providers of confidential data to the research community (ISR, NORC, RTI) can reduce barriers to accessing data by enabling qualified researchers to analyze data through a modality that is appropriate to their level of data-security training and experience. It also assures that access is obtained for legitimate research purposes on an equitable basis.
- In order to make data useful, and the research arising from it replicable, investments should be made in data documentation via well-defined metadata fields, and infrastructure should be built that enable researchers to locate and analyze datasets held in multiple, distinct, secure locations. Community curation, provided by researchers who are invested in understanding the data and enabled with appropriate software, can assist in building this documentation.

The characteristics of a data-sharing infrastructure designed to increase the availability and use of government data for evidenced-based program evaluation include:

- Robust search and browse capabilities that leverage standardized metadata, permitting researchers to discover data and learn about data in depth
- Capacity to facilitate crowdsourcing (active curation) and improvement of metadata to capture and leverage newly acquired knowledge about the data
- Capacity to recognize varying levels of credentials assigned to a researcher ID
- Functionality that enables researchers to analyze datasets held in multiple, distinct, secure locations, that is, a computing backbone that can support secure, multi-party computing.

Two white papers prepared for the Commission on Evidence-Based Policymaking by the Office of Management and Budget, "Using Administrative and Survey Data to Build Evidence" and "Barriers to Using Administrative Data for Evidence Building," explicitly point to the key challenges. These include statutory prohibitions that hinder access to the data; policy and legal interpretations, which can vary across agencies and federal, state, and local governments; and resource and capacity constraints, specifically the lack of appropriate and reliable infrastructure to address data sharing and access, management and curation of data, and security and privacy concerns.

The Longitudinal Employer-Household Dynamics/Local Employment Dynamics data program is our best example of such a collaboration. LEHD highlights both the enormous potential and the enormous challenges to creating and making use of linked state and federal data. This collaboration has made possible very important new data assets which have revolutionized our understanding of local and internal labor markets, job creation and destruction, and job mobility for workers in different industries, cohorts, and demographic groups. These valuable data remain underutilized because of limitations to access. Providing resources to strengthen state and local government statistical capacity would allow those agencies and their civil servants to participate more effectively in research using these data. Increased capacity within state and local governments would allow these agencies and civil servants to benefit from collaboration with external researchers and reduce their incentives to impede research.

There are benefits and limitations to both the single- and multiple-clearinghouse approaches. Overall we endorse a principle of union catalogs, so that data can be discovered and compared. A single clearinghouse would facilitate the process of finding and gaining access to the data and potentially linking multiple datasets. A clearinghouse would also act as a single point of entry for an analyst searching for appropriate data with which to address his/her question, and one might expect that a single catalog would have the benefit of consistent metadata to assist the researcher in evaluating the options and identifying the most useful source of data. Having a single clearinghouse to more efficient linking of datasets, for example if the clearinghouse functioned as a trusted third party and provided de-identified, linked data to researchers. A single clearinghouse, using appropriate software to track dataset versions would also increase reproducibility of analyses by make it easier for researchers and policymakers to identify a specific instance of a dataset. Given that administrative datasets are updated regularly as new

data are generated versioning of data is particularly important for rigorous and reproducible analysis. The most important benefit to a single clearinghouse is that it would reduce the bureaucratic hurdles to analyses that required to access multiple datasets; on the other hand, these hurdles creates checks and balances and privacy protection that can be undermined by centralization.

Multiple clearinghouses, however, would allow for specialization and expertise around particular data sources and/or types (which lends itself to strong user support as well) and the flexibility to respond more efficiently to changes in formats or uses of data in a particular domain. One of the challenges to using administrative data for research and analysis is the lack of accompanying documentation about the fields in the dataset. A series of specialized clearinghouses could begin to address this because domain-specific staff expertise could, over time, be used to create such documentation -- for example, noting when the underlying meaning of a particular field has changed or even simply pointing out that distributions on key variables changed at a specific point in time so that the researcher could do the detective work necessary to figure out why. Having multiple clearinghouses also spreads and develops the capacity necessary in both person-power (tagging, data checking, user support) and hardware/software for storing and disseminating the data across multiple organizations. This decentralization provides robustness to the infrastructure while increasing privacy protections.

An efficient and privacy-protecting solution would be to have integrated data catalogs and multiple clearinghouses, but secure, multi-party computing across clearinghouses and common standards to gain access to data, including:
- common researcher credentials
- peer review and pre-registration of research project proposals
- data use agreements
- required metadata fields

High quality data requires investment in curation. High quality analyses require investment in training researchers and civil servants and providing them with up-to-date computing facilities. Democracy requires that the data be well-protected. All of these require resources that have to be provided by someone.

One model for self-sustaining data access is the consortium model. Most relevant to the types of data discussed here is the Institute for Research on Innovation and Science (IRIS), a project based at the University of Michigan's Institute for Social Research. Started with funding from external sources, IRIS's model was to become self-funded by charging institutions (colleges and universities) an annual membership fee. This fee provides the member institution with campus-level reports based on their data, a seat at the table to help prioritize and design future IRIS products and initiatives, and access to de-identified and aggregate IRIS data for researchers on their campus. One benefit to universities is that, although they are required to deposit data about their campuses with IRIS annually, the IRIS staff has automated the ability to produce charts and reports based upon those data (possible because the same information

fields are collected from each institution). An organization or government agency that is required to share data and/or provide reports based on those data can find that it is in their interest to pay those with the skills and resources to properly support the data sharing efforts to carry out those tasks rather than reinventing the wheel and building that capacity within each agency. The data center providing a service such as creating reports or demonstrating use of the data within the research community is seen by the data producer as an added benefit. Similarly, the Inter-university Consortium for Political and Social Research (ICPSR) began as a consortium of 22 institutions in 1962 and continues the model with over 760 member institutions today. These institutions pay an annual membership fee in exchange for access to data curated (and tools created) using member funding as well as reduced tuition for students enrolling in the ICPSR Summer Program in Quantitative Methods of Social Research.

It is important to remember, however, that there is no free lunch; if we want better data and better analysis than currently exists, resources will have to be obtained to support this. The value of this research may well provide the basis for self-financing, but it is more likely that such research creates positive externalities without the ability to generate much revenue to support it.

It is critical that administrative and survey data held by government agencies be made available to qualified researchers and institutions for scientific research and evidence-based analysis. Such access provides the policy community with much greater resources for informing policy decisions than if we rely exclusively on government analysis. It also increases the likelihood that there is diversity in the analytical approaches brought to bear on important policy questions.

"Qualified researchers and institutions" should be established through external scientific peer review of proposals and a system of researcher credentialing that creates an incentive for researchers to be good data stewards. Because of the current lack of consistency across agencies in defining these terms, ICPSR is undertaking a project to research, propose, and test recommendations for researcher credentialing, the result of which will be a tiered set of characteristics that describe "qualified researchers and institutions." These characteristics will stem from those currently employed/accepted by providers of restricted data, in so far as those requirements are related to protecting against disclosure risk (i.e., not requirements put into place to add bureaucracy or additional "hoops" that must be jumped for data access). We anticipate using factors such as whether one has completed requisite training in ethical data use, is employed at an accredited academic institution, has secured federal funding, and proposes a project that is scientifically sound and that requires access to the data in question.

The ability to disseminate data using a variety of modes (providing metadata only, synthetic data, use restricted to a physical or virtual enclave, or encrypted download) also allows for flexibility in determining access. That is, if a researcher does not have accepted credentials, or is not affiliated with an institution with appropriate technical and legal protections for data, a researcher might still be allowed access to de-identified data. More sensitive data can be restricted to access in a virtual or physical data enclave. In other words, the same data may be

made available to different researchers under different access modalities based on the characteristics of the researcher and the sponsoring institution.

The integration (linking) of administrative and/or survey data in a clearinghouse without question increases the risk of disclosure of entities within the data; however, the federal statistical community and the research data community have a long history and reputation for protecting confidentiality. This reputation must be maintained and protected by adhering to the Office of Management and Budget's Directive 1 (2014). Policies to maintain these protections and the reputation of and confidence in the statistical agencies of the United States include:

- Providing access only to credentialed analysts with well-articulated research plans and objectives
- Provision by the clearinghouse of disclosure review of output, notes and other materials that are to be taken out of the clearinghouse (secure environment) to prevent unintended disclosure of subjects within the dataset(s)
- Developing and implementing privacy preserving analytical techniques as well as disclosure avoidance techniques such as creating synthetic populations that preserves statistical information

Clearinghouses can and should require researchers or analysts to submit a detailed proposal of the project for which the data are to be used, specifically addressing why the dataset in question is necessary for addressing the research question. Once these are vetted, by scientific peer review, clearinghouse staff and perhaps an external review board representing the data producer and the study population, a conclusion can be drawn on whether the benefits of the research project outweigh potential risks. Other restrictions should be consistent with the factors listed above -- explicitly agreeing to use the data in an ethical manner (and potentially demonstrating completion of training in doing so), restrictions on the computing environment in which the data can be analyzed, agreeing to terms of use, and the like.

There are a number of private and governmental organizations that offer technological options for data sharing and management. Colectica, a Minneapolis-based firm, is an example of a research and development firm specializing in data management, integration services, and Internet technologies for government, academic, and commercial computing; it offers a range of highly specific products and services useful for supporting data sharing and management. They offer tools for working with metadata using a variety of documenting standards (e.g., the Data Documentation Initiative, DDI,). Colectica also has a portal that offers search, browse, visualization, and data management capabilities.

Other projects exist that could offer either the technology or the functionality considerations that would be helpful. One such project is the Sustainable Environment/Actionable Data (SEAD) project, funded by the National Science Foundation and based at the University of Michigan. SEAD provides a collaborative platform for researchers to curate their data as they undertake analyses, so that the documentation is created and captured and can be harvested when the

data are shared (i.e., in a clearinghouse). A number of organizations, such as ICPSR, NORC, and the Michigan Center for the Demography of Aging, use technology to create virtual spaces in which researchers can analyze data that have significant disclosure issues. Generally, these spaces require the researcher to log in to a server housed at the data provider, conduct their analyses, and have output vetted before it is released to them. These virtual data enclaves often disable connections to the internet, print functionality, email, and other programs/features that might compromise data security. Lastly, software (e.g., Fedora) exists for creating and managing digital repositories and could be employed by a clearinghouse.

Resources to train civil servants in state, local, and federal agencies to evaluate their own data will also increase their capacity to learn from and absorb the analyses done by others. The implementation of *multiple* randomized control trials could also reduce the inclination to limit data sharing, as analyses can examine the question of which policies or interventions should be supported at scale (not simply whether an individual policy or program should be continued). Building continuous evaluation and improvement, based on progress toward measurable objectives for the relevant population, into policy design provides programs with incentives to collect and analyze data in order to identify potential improvements.

We should also work to develop a culture that highlights the intrinsic benefit that most civil servants, researchers, and the general population receive from having better answer questions about program effectiveness and other social issues. Researchers and civil servants will then be more likely to suggest improvements to data collection (methods and/or content) that would provide more effective analytic data to use in program evaluation. Researchers who are analyzing data are also likely to catch anomalies or potential inaccuracies that might be missed without researcher engagement. Having multiple researchers with multiple perspectives working with the same data will support models that might be more robust than if a single party were solely responsible for producing the evaluations. The research community's embrace of data transparency and replicability may provide reinforcement to governmental agencies to adhere to similar principles. Sharing data among agencies and with researchers increases the return on investments in data creation. It is more efficient use of government resources. It is rarely the case that a single researcher or organization can study everything that can be examined using a given data source. Differences in disciplinary perspectives mean that data collected for one purpose might be seen by another investigator as having value for his/her project that is completely different. Our statistical agencies employ dedicated civil servants who value improvements in the quality of measurement that they produce for our country. Recognition and respect for these values and these individuals will enable them to be more effective and take the steps necessary to continuously improve our data infrastructure.

There are currently significant barriers in accessing and using such data, including challenges in discovering the existence and location of appropriate data, uncertainty about legal infrastructure and processes for providing access to data, lack of documentation of file contents or data provenance. There are also limited resources for analyzing data (e.g., appropriate training for

government employees and non-governmental researchers, appropriate computing infrastructure).

Simply using such information is the first step. Organizations may collect data from program participants but not use it in evaluating the effectiveness of the program, may create summary statistics based on the data but not move further into more sophisticated statistical models, and/or may not be aware of existing research that could inform program/policy decisions. The ability to link data sources provides an opportunity to put data about program participation into context in ways that have not been possible before. For example, having information about students' performance for a given school by itself is helpful, but having the ability to link the information to such things as parental earning records and teacher characteristics allows an educational policy analyst to determine which shifts in student performance are likely a result of new policies implemented at the school, characteristics of the school or teachers themselves, or other issues related to outside influences such as food insecurity. Comparing data across similar contexts or programs is helpful in that the similarities and differences between the contexts create quasi-experimental designs, allowing researchers to identify the parts of the program that are most effective and those where improvement might be needed. Making data available to researchers also provides an avenue for dialogue between academics and policymakers that otherwise might not exist.

Program and policy evaluation should be included in program design so that evaluation is based on evidence that is available and analyzable by multiple, even competing, research teams, held to standards of reproducibility so that all parties can learn from evidence as it accrues in the process of program implementation.

Commission chair Abraham, Commission co-chair Haskins, other commissioners and Dr. Martinez, thank you for holding this hearing today and including me in it.

The development of a statistical infrastructure that integrates administrative and program data, as well as commercial and other non-designed data, has enormous potential to provide the basis for improvements in our knowledge and understanding of the impact and effectiveness of alternative policies. This is an extremely important effort, and I commend you for working to build the statistical infrastructure that we need to create an empirical, evidence-based foundation to undergird policy discussions.

I'd like to emphasize today the important ways that collaborations between federal agencies and academic organizations can help to address several challenges in using administrative data for evidence-based policy making.

First and foremost, collaboration with multiple, external academic organizations can help to assure data availability without excessive centralization that might compromise Americans' right to privacy and security in the data that is generated by and about them in the course of their interactions with federal and state agencies. Confidentiality of individual data and the independence of the federal statistical system must remain paramount. Participation in our federal data programs, whether they collect survey or administrative data, is premised on the promise that individual data will remain confidential and will be used for statistical purposes only, and is never used for enforcement purposes or for the benefit of particular commercial or political interests. As articulated in the Office of Management and Budget's Statistical Policy Directive No. 1 (2014), it is critical to "Protect the trust of information providers by ensuring the confidentiality and exclusive statistical use of their responses." This is just as true when considering administrative data rather than the responses of survey participants. Undermining this trust undermines statistical measurement as well as the effectiveness of the programs which the statistics are intended to measure.

Collaboration with academic organizations can help to address this privacy challenge by providing the basis for a network of data resources that can be analyzed jointly, without concentrating data within a single federal agency. As an example, IRIS, the Institute for Research on Innovation and Science, a collaboration of dozens of universities based at the University of Michigan's Institute for Social Research, is aggregating administrative data from those universities into a single data infrastructure. Those data can be shared with and linked to federal data assets, but they are produced and reside outside the federal government. Other academic collaborations are doing the same for administrative data from state and local governments on K-12 education, criminal justice, transportation, and land use.

This model of a networked data infrastructure, based on collaborations between academic organizations and federal statistical agencies, allows us to reap the benefits from using administrative and program data, especially given the emerging capabilities of secure multi-party computing, without the potential threats to privacy that might be associated with a more centralized system.

Second, collaboration between the federal government and academic organizations can bring to bear the efforts of the large number of faculty and students who would be more than willing to work to improve administrative data. This is particularly important as administrative data, like other non-design data, require significant investments in cleaning to assure that the target measurement concept is what is actually being measured. Investments in preservation and documentation are necessary to meet basic scientific standards of reproducibility; crowdsourcing improvements to data and metadata from the academic research community can do at least some of this. The creation of good documentation and metadata is critical to the effectiveness of a networked system, as it allows for the creation of a "union catalog" of data, and coherent analysis of data, even when those data resources are located in different places. Given the very real resource constraints of the federal statistical agencies, effectively leveraging these external resources is critical to the construction and design of a rigorous statistical infrastructure.

Third, those same academic collaborators bring with them expertise in both measurement and analysis that contribute directly to the scientific rigor of the policy analysis.

Fourth, collaboration with academic and other research organizations increases the likelihood that multiple analytical approaches are considered when evaluating a policy or program, avoiding any tendency for monolithic or even self-serving analysis. Open access to alternative, competing approaches to analytical questions provides the basis for legitimacy of the analysis that is done with administrative data and increases the public's trust and willingness to have data about them and their activities used in this way.

Finally, this kind of collaboration develops skills, both on the part of the civil servants on whom we rely for producing the critical statistical resources of our country and on the part of students who are the next generation of scholars and civil servants. The civil servants who make up the federal statistical system deserve our respect and appreciation. We need to elevate their status, and we do that, not by isolating them within the federal bureaucracy, but by allowing them to engage with their academic peers. This kind of collaboration will also produce a generation of students who better understand the challenges of measurement and policy-relevant analysis as a result of their participation in such a collaboration.

Thank you for your attention and consideration, and thank you for the work that you are doing to modernize our statistical infrastructure, the very basis of our knowledge of ourselves and our society.

Submitted December 6th 2016

<u>Written Statement for the Commission on Evidence-Based Policymaking</u>
<u>Public Hearing in Chicago, January 5th, 2016</u>

Introduction

The Abdul Latif Jameel Poverty Action Lab North America (J-PAL NA), based in the Department of Economics at the Massachusetts Institute of Technology, leverages scholarship from 143 affiliated professors to generate and disseminate rigorous evidence about anti-poverty policies. J-PAL NA provides pro-bono technical support, capacity building, and matchmaking with researchers to government agencies and nonprofits seeking to design and implement randomized evaluations, many of which rely extensively on administrative data. Affiliates in our network have conducted 154 ongoing or completed randomized evaluations in North America across sectors such as health care, housing, criminal justice, education, and labor markets. J-PAL NA also creates training materials to build research capacity, including a comprehensive, practical guide to obtaining and using administrative data for randomized evaluations.[1] We appreciate the opportunity to submit a statement to the Commission on Evidence-Based Policymaking.

J-PAL affiliated researchers have relied heavily on administrative data to conduct policy-relevant research. Data from IRS tax records enabled an almost 20-year follow-up of families involved in the Moving to Opportunity Experiment. The follow-up study demonstrated that young children who moved to low-poverty neighborhoods increased their college attendance and expected lifetime earnings.[2] Data from the U.S. Department of Education, the Ohio Board of Regents, and the National Student Clearinghouse collectively enabled a randomized controlled trial showing that simplifying the financial aid application process increased college attendance and persistence.[3] Data from hospitals in the Portland area revealed that Medicaid insurance, for which opportunities to apply were allocated through a lottery in Oregon, increased emergency room usage by 40 percent.[4] Access to administrative data was critical to generating these insights.

Executive Summary

This statement reflects J-PAL's expertise concerning randomized evaluations, administrative data access, and collaboration between government agencies and external researchers. It

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[1] Feeney, Laura, Jason Bauman, Julia Chabrier, Geethi Mehra, and Michelle Woodford. "Using Administrative Data for Randomized Evaluations." J-PAL North America. December 2015.
https://www.povertyactionlab.org/sites/default/files/documents/AdminDataGuide.pdf
[2] Chetty, Raj, Nathaniel Hendren, and Lawrence F. Katz. "The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment." NBER Working Paper #21156, May 2015.
[3] Bettinger, Eric P., Bridget Terry Long, Philip Oreopoulos, and Lisa Sanbonmatsu. 2012. "The Role of Application Assistance and Information in College Decisions: Results from the H&R Block Fafsa Experiment." The Quarterly Journal of Economics 127(3):1205-42.
[4] Taubman, Sarah, Heidi Allen, Bill Wright, Katherine Baicker, Amy Finkelstein, and the Oregon Health Study Group. 2014. "Medicaid Increases Emergency Department Use: Evidence from Oregon's Health Insurance Experiment." Science 343(6188):263-8.

incorporates recommendations from an open letter penned by several leading economists, including multiple J-PAL affiliates[5], and a short paper published by a subset of the same authors.[6] This comment elaborates on these key recommendations:

- Establish clear data documentation and standard data request forms, building on the example set by the Centers for Medicare and Medicaid Services.
- Expand secure access to real microdata to qualified researchers, prioritizing secure remote connections while also increasing capacity at Census Research Data Centers.
- Develop a data clearinghouse within the Census Bureau for currently hard-to-access data, particularly microdata on earnings and income, and link the data across agencies.
- Avoid flat per-user fees for data access to encourage validation and double-checking of data analysis.
- Clearly articulate program objectives and build ongoing process evaluation into every program to lay the foundation for impact evaluation.
- Institutionalize a process for identifying questions for program evaluation and appropriate conditions for randomized evaluations, focusing on three cases:
    - Demand for a program exceeds capacity to supply the program.
    - Gradual roll out of a program to different individuals or locations over time.
    - Refinement or reconsideration of eligibility criteria for a program.

Responses to Specific Questions Posed in the CEP Request for Comments

3. Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?

Build on the example of the Centers for Medicare and Medicaid Services to establish clear data documentation and standard data requests.

Existing government data infrastructure should incorporate standard data request forms with clear data dictionaries, using the Centers for Medicare and Medicaid Services (CMS) Research Data Assistance Center (ResDAC) data documentation as a model of best practices. The ResDAC system allows researchers to understand specifically what variables are available and to submit requests with data protection plans. Because the ResDAC system allows CMS to review those requests systematically as opposed to on an ad hoc basis, ResDAC facilitates routine, secure access to administrative data that culminates in several hundreds of medical studies each year.[7]

Applying the ResDAC model to an administrative data clearinghouse or other data repositories would allow researchers to see exactly what variables they are permitted to request, along with a

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[5] Card, David, Raj Chetty, David Cutler, Steven Davis, Martin Feldstein, William Gale, Jonathan Gruber, Michael Greenstone, Caroline Hoxby, Lawrence Katz, and Emmanuel Saez. 2010. "An Open Letter on Expanding Access to Administrative Data for Research in the United States. https://eml.berkeley.edu/~saez/dataaccess_final.pdf

[6] Card, David, Raj Chetty, Martin S. Feldstein, and Emmanuel Saez. "Expanding access to administrative data for research in the United States." *American Economic Association, Ten Years and Beyond: Economists Answer NSF's Call for Long-Term Research Agendas* (2010). https://eml.berkeley.edu/~saez/card-chetty-feldstein-saezNSF10dataaccess.pdf

[7] Ibid.

brief description of each variable, before submitting a request. This explicit listing of available variables would enable data discovery and save program administrators and researchers hours of valuable time by avoiding long correspondences about whether the desired data exist. Publicizing exactly which variables exist and what agency houses the data increases transparency with no risk of revealing personally identifiable information. Better data documentation can thus facilitate use of and access to administrative and survey data without raising concerns for data security and privacy protection.

Moreover, sensitive variables that would trigger additional levels of review or security could be clearly labeled as sensitive as part of this clearer data documentation. Currently, researchers may request a variable that is not central to their analysis, without realizing that it captures sensitive information. This could delay or jeopardize the entire request or allow access to sensitive data that, with clearer data documentation, would not have been requested from the agency.[8]

4. What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation, and analysis purposes?

<u>Expand secure access to microdata to qualified researchers through remote and on-site connections rather than creating synthetic data.</u>

An optimal infrastructure for integrating administrative, survey, and statistical data to facilitate research and evaluation while ensuring data security and privacy will provide secure environments where qualified researchers can directly access microdata. Microdata enable researchers to perform more informative analyses by controlling for individual characteristics (such as educational attainment or race) to better determine the impact of a program. Microdata also allow researchers to evaluate how a program affects specific subpopulations, such as low-income individuals. Researchers can use microdata to validate and adjust their analysis as they learn from the data in real time—a crucial step in the research process. Moreover, for analysis in rigorous randomized evaluations, researchers require microdata to link individuals to their treatment status.

There are currently twenty-four Federal Statistical Research Data Centers (RDCs), which are physical, secure environments established through partnerships between the Census Bureau and research institutions where researchers who have undergone special sworn status can access restricted microdata. However, capacity in these RDCs is limited, both physically and according to Census bandwidth, and access is artificially restricted to researchers based on geographic proximity rather than on the merit of their research proposal.[9] Similar constraints apply to researchers working with statutorily restricted tax data through contracts with the IRS Statistics of Income Division (SOI)—the type of arrangement that enabled the Moving to Opportunity follow-up study. The SOI is small, has a limited budget, and can accommodate few research projects at a time. [10] More secure, direct access to microdata should be provided in two ways: (1)

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[8] Feeney et al., "Using Administrative Data for Randomized Evaluations," 2015.
[9] Card et al., "Expanding access to administrative data," 2010b.
[10] Office of Management and Budget, *Barriers to Using Administrative Data for Evidence-Building* (white paper submitted for the Commission on Evidence-Based Policymaking, July 15, 2016). https://www.whitehouse.gov/sites/default/files/omb/mgmt-gpra/barriers_to_using_administrative_data_for_evidence_building.pdf

preferably through remote, secure connections such as the "flexiplace" systems used by federal employees who work with restricted data from home, but also (2) through expansion of on-site secure environments in the form of additional space and funding for Research Data Centers and similar centers at other statistical agencies.[11]

Synthetic data, one alternative to expanding remote and on-site secure connections to restricted data, are a far inferior option for enabling policy-relevant research and program evaluation. Synthetic data are constructed to mimic certain features and aggregate characteristics of real data without containing real individual-level information. Although this appears—on its surface—to enable research while protecting privacy, synthetic data suffer severe disadvantages relative to real microdata. Synthetic data may be incompatible with randomized evaluations and other rigorous program evaluations because researchers must be able to link individuals to their treatment status—i.e., whether a particular person received a program or not. Furthermore, synthetic data make it difficult or impossible to study subpopulations, such as low-income individuals, which may be of particular policy interest. Researchers would have to specify each subpopulation they intend to study and all necessary contents of the data in advance. This may be impossible, in part because researchers often revise their analyses to address observations they learn from the raw data.[12] Meanwhile, data administrators would have to create new synthetic datasets for each request to study a specified subpopulation, which would require significant infrastructure and personnel.

7. What data should be included in a potential U.S. government data clearinghouse? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

<u>Establish a data clearinghouse within the Census Bureau for currently hard-to-access data, particularly microdata on earnings and income.</u>

For reasons discussed in response to question 4, the data should be real microdata rather than aggregated, de-identified, synthetic, or perturbed data. The clearinghouse should prioritize data that do not already benefit from strong infrastructure for access. Specifically, a clearinghouse should be developed for federal income and earnings microdata and focus on enabling researchers to link these data to the extent legally possible.

Income and earnings data have less well-developed access infrastructure and face several legal barriers to use for program evaluation, meaning that the clearinghouse would not be redundant.[13] For example, individual states maintain their own data system for Unemployment Insurance (UI) records, with individual discretion and statutory protections on providing access to this data. The Department of Labor does not store the data in a central location. Although the Census Bureau has made a significant contribution to accessing state UI data through the Longitudinal Employer

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[11] Card et al., "Expanding access to administrative data," 2010b.
[12] Ibid.
[13] Ibid.

Household Dynamics Program (LEHD), the LEHD program requires that researchers be on-site at a designated Research Data Center.[14]

With infrastructure secure enough for the highly restricted data from UI and tax records established, the clearinghouse should then focus on facilitating linkage of these data with other, less restricted data. Federal data on income, namely tax records or Unemployment Insurance records, are in high demand because income can serve as a key outcome variable for many government programs or policies in education, job training, criminal justice, and place-based interventions.[15] For example, earnings—as measured by tax records—was a key outcome variable in the follow-up study of the Moving to Opportunity Experiment.

8. What factors or strategies should the Commission consider for how a clearinghouse(s) could be self-funded? What successful examples exist for self-financing related to similar purposes?

Avoid flat per-user fees for data access to encourage validation and double-checking of data analysis.

As is customary, a clearinghouse may charge fees for accessing data, such as a fee per project, a fee for sets of users, or an initial fee for the first user followed by much smaller fees for additional users. It should not charge the same flat fee per person for accessing the data because this severely discourages the double checking crucial to correcting human errors. Despite its clear data request process, CMS charges a fixed fee of $25,000 per person who accesses identifiable data through their Virtual Research Data Center.[16] This may create problems because researchers often need multiple people to work with the data to ensure accuracy—including people who effectively proofread to correct for human coding errors. With fixed per-person costs, researchers either pay a large inflexible sum of money for someone to double check the analysis or—facing tradeoffs given limited research funds—forego a set of "fresh eyes" to double check the analysis at risk of making mistakes. Therefore, by creating a high marginal cost to adding additional users, charging a fixed fee per data user effectively institutionalizes mistakes.

18. How can or should program evaluation be incorporated into program designs? What specific examples demonstrate where evaluation has been successfully incorporated in program designs?

Clearly articulate program objectives and build process evaluation into every program to lay the foundation for impact evaluation.

Process evaluation is always needed and constitutes a critical prerequisite for impact evaluation. It is not sensible to ask whether the program is succeeding or failing to deliver outcomes without first knowing whether the program itself is being delivered with fidelity. In some cases,

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[14] Ibid.

[15] Office of Management and Budget, *Barriers to Using Administrative Data*, 2016.

[16] Research Data Assistance Center. "Fee List for RIFs: Physical Research Data Requests." Centers for Medicare and Medicaid Services. https://www.resdac.org/sites/resdac.umn.edu/files/CMS%20Price%20List%20for%20Research%20Files_23.pdf Accessed October 31, 2016.

important questions about how a program can or should function may be sufficiently answered by process evaluations, needs assessments, or literature reviews. Rigorous impact evaluation, particularly randomized evaluation, should be pursued when the benefits in terms of knowledge generated would likely outweigh the costs of the evaluation, and when planning during program design can facilitate impact evaluation. [17]

Many components that aid process and impact evaluation should be developed during program design:

- Precisely articulated program objectives.
- A needs assessment clearly articulating the problem that the program will address.
- Standard outcome measures used in research literature about similar programs that allow potential impact evaluation results to be compared to those in other studies and used in cost-effectiveness analyses.
- A plan for data collection and flow from program practitioners to administrators. This includes planning in advance to collect identifying information, such as Medicaid ID numbers, to enable later matching of program-level records to administrative records for impact evaluation.

As an example of incorporating evaluation into program design, Benefits Data Trust (BDT) is working with J-PAL North America in an ongoing randomized evaluation of different outreach strategies to increase enrollment in the Supplemental Nutrition Assistance Program (SNAP) among eligible but unenrolled individuals in Pennsylvania. BDT had a clear grasp of the need its program addressed: despite awareness among eligible households that SNAP exists, many people could not imagine navigating the enrollment process alone. BDT had the clear program objective of increasing benefits enrollment, and change in program enrollment is a standard outcome that could be compared across different studies. BDT and researchers agreed that based on a review of the existing research, there was little rigorous evidence about what interventions can increase SNAP enrollment.

Although BDT was already providing enrollment assistance and sending outreach, BDT worked with researchers to design and test two distinct outreach activities—one high-touch intervention including a letter plus enrollment assistance and one low-touch intervention including a letter only. The researchers also worked with BDT to design a new letter for the evaluation based on marketing and psychology literature. Seeing quickly that this newly designed letter was more effective, BDT plans to incorporate this letter design in other states outside of Pennsylvania. Ultimately, the impact of the different outreach strategies will be measured using administrative data, which can be accessed according to a data use agreement with the Pennsylvania Department of Human Services.

19. To what extent should evaluations specifically with either experimental (sometimes referred to as "randomized control trials") or quasi-experimental designs be

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[17] Glennerster, Rachel, and Kudzai Takavarasha. *Running randomized evaluations: A practical guide*. Princeton University Press, 2013.

institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?

<u>**Institutionalize a process for developing specific research questions and determining the appropriate conditions for randomized control trials or other evaluation methods.**</u>

Federal agencies should institutionalize a process of developing high-priority research questions and determining the most appropriate evaluation methodology, following the precedent set by the Social and Behavioral Sciences Team (SBST). SBST launches demonstration projects—usually in the form of randomized evaluations—to rapidly evaluate low-cost applications of behavioral science to achieve desired outcomes, such as increasing workplace savings plan enrollment among military service members or increasing the rate at which indebted graduates apply for income-based loan repayment plans.[18]

When properly designed and implemented, randomized evaluations rigorously demonstrate the causal impact of a program by establishing the counterfactual—what outcomes would exist for program participants if they had not received the program. Random assignment ensures that, with a large enough sample, the group that receives the program and the group that does not are similar on average before the start of the program. Therefore the impact estimate from a randomized evaluation offers confidence that any differences in outcomes between the two groups are a result of the program. The ability to isolate program impact from self-selection or other confounding factors is why randomized evaluations are widely recognized as a highly credible method for estimating program impact. Where there is little internal experience implementing randomized evaluations, agencies should seek partnerships with external or academic researchers who are vested in similar questions.

Randomized evaluations can only occur when randomization is built into the program design. However, randomization should not be incorporated indiscriminately; rather, randomization should be incorporated into programs to facilitate randomized evaluations where appropriate on three grounds:

- The current evidence for answering the well-defined research question is non-existent, insufficient, or inconclusive.
- There is a clear unit of randomization—individual program participants, schools, clinics, etc.—for which there is a large enough sample size and a clear means of tracking outcomes for both the treatment group and the control group.
- Randomization is feasible and ethical. Although not an exhaustive list, the following conditions offer opportunities where randomization may be feasible and ethical:
    - Demand for a program exceeds capacity to provide the program. A lottery may be a fairer alternative than allocating slots on a first come, first served basis—particularly when a goal of the program is equity of access—and offers an alternative to imposing increasingly narrow eligibility criteria under funding constraints.

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[18] Social and Behavioral Sciences Team. *2016 Annual Report*. Executive Office of the President, National Science and Technology Council. September 15, 2016. https://sbst.gov/assets/files/2016%20SBST%20Annual%20Report.pdf

- o A program is being expanded by gradually offering it to individuals, schools, or districts until full coverage is reached. A lottery can be used to randomly assign the order in which individuals or units receive the program. The individuals or units that have not yet received the program serve as the control group until all units receive the program.
- o A new intervention—such as a financial incentive or care coordination services— will be added to an existing program. Program participants can be randomized to receive different versions of the program, e.g., with or without the added intervention, to isolate the impact of the new intervention.
- o Program eligibility criteria are being refined or reconsidered. People just above/below the eligibility cutoff can be randomly assigned to receive or not receive the program to determine whether it is effective for this marginal group. Meanwhile, those well within the program eligibility cutoff, automatically receive the program, and those well outside the cutoff do not qualify for the program.

As a specific example of institutionalizing a randomized evaluation, the South Carolina Department of Health and Human Services is partnering with J-PAL North America to incorporate a randomized evaluation in its expansion of a nurse home-visiting program for low-income mothers delivered by the nonprofit organization Nurse-Family Partnership (NFP). The specific, high-priority research question is whether a new, less expensive version of the NFP program that South Carolina is expanding will be as effective as the pre-existing version that has been rigorously evaluated before.

A randomized evaluation was found to be an appropriate method for answering this question given excess demand for the program. Although South Carolina is expanding this less expensive version of NFP to thousands of mothers through an innovative pay-for-success initiative, the program does not have sufficient resources to serve all of the women who are eligible. Applicants will be randomly assigned, on a rolling basis from 2016 to 2020, to either a treatment group that is offered access to the program, or to a control group that is not.[19] We will assess the effect of NFP on a range of short- and long-run maternal and child outcomes using administrative data that will be available for all members of both treatment and control groups. This will yield useful evidence for South Carolina and for policy makers nationally, who are interested in the broader health and financial consequences of expanding Medicaid to include similar services.

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[19] The Abdul Latif Jameel Poverty Action Lab. "The Impact of a Nurse Home Visiting Program on Maternal and Child Health Outcomes in the United States." Accessed October 24, 2016. https://www.povertyactionlab.org/evaluation/impact-nurse-home-visiting-program-maternal-and-child-health-outcomes-united-states

Date: December 22, 2016

To: Commission on Evidence-Based Policymaking

From: Tom Schenk Jr, Chief Data Officer, City of Chicago

RE: Input on CEBP mission as defined in Public Law 114-140

Data privacy is crucial so Americans can trust the systems they rely upon for their well-being. People must have full faith in the ability to talk to their doctors, knowing that their details will not be reassociated with them again; students and parents must have faith that their grades, disciplinary records are only made to select few; and every member of the household must have faith that their responses to Census records will not be shared widely until many decades later.

Those protections should not inhibit their government from providing better, more comprehensive services. The whole sum of social sciences research has demonstrated that outcomes in health, education, well-being and other areas are highly dependent on outside factors, such as nutrition, education levels of parents and guardians, family wealth, and many other factors. Often, researchers and policymakers need to account for external factors, such as these, to help understand program effectiveness.

Enabling evidence-based, data-driven policy is crucial for governments to be more efficient and effective for Americans. This is a progression of many steps where the bipartisan coalitions in U.S. Congress and the President have made several large steps to enabling greater data sharing with the explicit goal of improving education, workforce outcomes, health, and human services. The *America COMPETES Act of 2007* and subsequent *American Recovery and Reinvestment Act* provided the targets and funding, respectively, to allow state governments to build longitudinal data systems which facilitate the ability to track students from the school system into the workforce. The recent authorization of *Workforce Innovation and Opportunity Act* (WIOA) has extended the call for linked data between education and the workforce to help job seekers.

The impact of these bills have been useful at every level of government. While heading institutional effectiveness and accountability for the Iowa Department of Education, we were able to use these longitudinal systems to conduct sophisticated analysis of the effectiveness of state-funded programs. Our team was able to calculate comprehensive rates of return to education for community colleges by each individual program for each individual college. By combining those records with state prison records, we could also determine the amount of diversion of costs by reducing the likelihood of crime. We could also determine the additional

tax revenues the state earned by those student's higher wages and lower expenses on other support programs.

Other research included sophisticated pseudo-experimental evaluations of science, technology, engineering, and mathematics (STEM) programs. These studies used sophisticated analytical techniques to follow students from middle school, through high school, and into college to judge the ability of programs to increase math and science test scores, improve high school graduation, articulation to college, and the entry into STEM college majors.

As a senior researcher with the Department of Medical Social Sciences at Northwestern Feinberg School of Medicine, we used linked patient records to understand the long-term impact of cancer interventions on not only the progression of cancer, but also the quality of life for cancer patients. And today, as Chief Data Officer for the City of Chicago, we link multiple data sources together to predict where to send food inspectors, the next outbreak of rodents, and to allocate our workforce to pro-actively

The task set for the CEBP is also enormous. If privacy is compromised or if we are unable to effectively link data to drive better decisions, it could setback progress on evidence-based policy. Based on my conversations with hundreds of residents on how governments use data, I have found that Americans are happy when this data is being used to improve lives and to make their government more efficient. However, we also know this optimism can be undermined by unethical uses of data or disclosing personal details of an individual. It is a careful balancing act that can be achieved, but takes considerable thought and attention.

II. Clearinghouse

One task laid out for CEBP is to "consider whether a clearinghouse for program and survey data should be established and how to create such a clearinghouse". Single clearinghouses of data are often too big and too complicated of a task to be done well. We all have ideals of a single large repositories of all data that can be used by every researcher. However, we must take rational first steps and focus on "quick wins". Attempts at creating websites for everyone often leads to creating something too confusing and ultimately not useful for anyone.

Instead, a two-pronged approach should be taken for the Commission to meet its target by creating smaller, linked hubs and to create a service to allow for *ad hoc* data matching.

A. Setup smaller "hubs" as initial steps to clearinghouse

In order to provide a tractable mission for CEBP, the organization must focus on data matching problems to help answer specific domains of policy questions. For instance, congress has passed several pieces of legislation focused on linking education and workforce outcomes. There are

clear outcomes that can be measured through these linked records. The initial hubs should focus on the highest priority questions, incorporating the most critical sources of data.

Additional hubs should be created to explore topics such as recidivism, health care, impacts of poverty, and other areas deemed of high importance. As new legislation is passed, Congress and the respective departments can continue to integrate data into these hubs so outcomes under the legislation can be effectively tracked and new research questions can be explored.

These hubs should continue to grow, but with a goal of eventually becoming interoperable themselves. This approach can help ensure that researchers get access to valuable data earlier while continuing to progress

B. A service to link data and remove unique identifiers should be provided for researchers

Researchers need access to a variety of linked data but while balancing privacy. One way to achieve this is to create a centralized service which empower teams whose responsibility is to match personally identifiable data for the purpose of research and then discard personally identifiable data before it is provided to researchers.

Of course, other data besides unique identifiers can compromise privacy. A unique combination of data—such as gender combined with age, race, and ethnicity—could allow someone to tie seemly anonymous data back to individuals. For instance, there may be a lone 32 year-old female immigrant in a ZIP code, so the release of that data could undermine privacy. Further steps on imputation, sometimes called "hot deck imputation", are needed to mask personally identifiable data.

The United Kingdom's Data Services—operated by the UK's Economic and Social Research Council (ESRC), an organization akin to the United States' National Science Foundation—provides similar services. The State of Florida's Integrated Network for Data Exchange and Retrieval (FINDER) has also set a benchmark for such services.

There should also be efforts to capitalize on the existing open data movement. Federal government agencies and hundreds of state and local governments have launched open data portals which make data easily accessible without any barriers. Linked data—at its most summary level—would be a great addition to open data portals.

III. Barriers to data exchange

A. Data needs to be exchanged between levels of government

Policymakers are sometimes surprised to find their respective government does not have all of the data relevant to their operations. In contrast to wide belief, the federal government does not have access to all of the data available for local and state agencies. There are significant and legal barriers that prohibit governments and agencies to sharing data between levels of government.

Congress and government agencies can take steps to facilitate data sharing between localities and states, between states, and between Federal governments and other government agencies. For instance, WIOA requires the tracking of educational outcomes even though states are unable to track those outcomes—such as wages and state certifications—in nearby states. Legislation should encourage, if not require, these data sharing exchanges to facilitate research studies.

B. Guidance on existing privacy laws

Some of the limited ability to share data is simply caused by misunderstanding privacy laws, perceiving or misinterpretation an inability to share data when it is possible. There will always be value in providing further guidance for governments to clarify permissible data sharing between departments and governments.

IV. Limitations on data usage

These new ideas must also evolve our notions of ethical uses of data. Currently, legislation exists on whether some can or cannot *have* data. A future clearinghouse, hubs, and robust linked data needs to consider how data is allowed to be *used*.

Further guidance will need to clarify ethical and unethical uses of data, which should extend to whether researchers would be permitted to access and use linked data. Violating these terms should remove the researcher's ability to be able to access linked data in the future.

V. Making research relevant and useful for policymakers

Research must be relevant to policymakers that answers their immediate questions and also be able to foresee other valuable research questions. A crucial aspect of relevant research is geographical relevance. National studies can indicate important trends, but often are not representative of each state or city or every participant. Research should be prioritized if it provides geographic breakdowns, breakdowns by subgroups, and other subsets deemed important for programs.

These summary statistics are incredibly useful for policymakers and should be frequently published. When data systems to talk with each other, agencies should still issue the reports that

take technical details and summarize high-level statistics. These statistics should also be downloadable.

Researchers should be encouraged to improve their communication channels for policymakers. They should rely on recent developments in data visualization research and issue short-form abstracts to quickly communicate findings and become less reliant on long-form journal articles and reports.

VI. Rigorous impact analysis

Randomized control studies have been considered the "gold standard" of evidence-based policy. However, these studies are not always possible because of logistical constraints, ethical concerns, or would be too narrow to represent overall performance of a program. Meanwhile, other sophisticated techniques, such as pseudo-experimental methods like propensity score matching, difference-in-difference, and other methods can be used to measure causal impact of programs. The framework on evaluation should consider the "gold standard", but also a "silver" and "bronze" standard of rigor.

KELLEY SCHOOL OF BUSINESS

INDIANA UNIVERSITY
Indiana Business Research Center

Timothy F. Slaper, Ph.D.

Research Director
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Abstract:

We at the IBRC support the Evidence-based Policymaking initiative. We strive to disseminate actionable, geographically relevant data to the public at no cost to the user to facilitate research and decision making at the local, regional, state and federal levels.

Place is primary in such work. The goals and objectives of the initiative and the Commission will be undermined if insufficient attention and effort are made to ensure that the spatial dimension of data, and the activities and agents those data represent, are not a primary focus for data collection, data identification, data integration and data application.

Place determines one's experience and often who one is and how one has developed. Any discussion about developing evidence for effective actions needs to have a common geographic language and precise definitions. As many have already testified or alluded to, integrating data from multiple agencies is critical for making an argument for which policies are effective and which are not. To this end, a national data clearinghouse has been proposed to provide one stop shopping for researchers and policy makers. Before any one-stop data shop can be implemented, all agencies within the national statistical infrastructure as well as all data collection and reporting agencies across all states must use a common and consistent set of geographic definitions and identifiers.

Written Statement:

Chairman Abraham, Co-Chair Haskins, and commissioners: I applaud the work you are doing to realize the vision of evidence-base policymaking. Thank you for the opportunity to address the Commission.

I am Timothy Slaper, the research director at the Indiana Business Research Center at Indiana University. Our center, over 90 years, is attached to the Kelley School of Business and was initially a data, analysis and research resource for businesses in the state. Over time, our mission has broadened to include public policy-related research and analysis in workforce development, occupational analysis, educational performance, demographic projections, local government finance, economic development and innovation, to name a few. It has also broadened in terms of geography as well. We now provide economic and demographic statistics for the entire nation and conduct research on regional development relevant to all areas in the United States.

Under the auspices of the State Library, the IBRC serves as the state data center. Our chief information officer has served as an advisory to many BLS and Census projects, including the Data Quality Initiative. The State Demographer works in our center and participates in Census collaborative programs. We know data. In fact, our databases currently have over 6 billion data items from every major statistical

agency in the federal statistical infrastructure as well as Indiana state-specific data from multiple state agencies.

If you were to google "U.S statistics," our website StatsAmerica.org would be listed in the top ten websites. This website is sponsored by the Economic Development Administration as a portal for several of their tools and resources and as a one-stop shop for many of the data reported by federal statistical agencies, primarily BEA, BLS and Census. The website also hosts the Innovation Index, a data resource for economic development practitioners to assess their county or region's strengths and weaknesses and make interregional comparisons. The Innovation Index 2.0 uses county-level data from BEA, BLS, Census, FCC, NCES, and NSF, among others.

Capturing and aligning the data for use in the index should have been mildly challenging, but it was not. It was massively challenging because there is no consistent or common geographic definition for a county over time, or, for that matter, for a single year. Having to deal with a shifting landscape of geographic definitions delayed the Innovation Index project nearly 18 months. Putting the county-seat holes back in the surrounding Virginia county doughnuts, as one must do with Census data to make it conceptually consistent with counties elsewhere, is one thing – not that hard – but having agencies like NCES with legacy issues in terms of geographic definitions that are not aligned with current Census definitions is exasperating.

I mentioned my frustration to a colleague who at one time sat as an advisor to Census. When he served in that capacity, people would mention the need to harmonize geographic definitions across statistical agencies and there would be universal nodding and agreement that it would be good to do so. Trouble is, phones would ring in Congressional offices. Data vendors, those who make money aggregating federal data and selling it to local and state governments, businesses and advocacy groups would complain to members that such a thing would hurt their business, and the idea would die.

Considering the importance of location in understanding the impact of policies, and considering the primacy of having consistent geographic definitions in order to integrate the data – the latter being something the IBRC knows plenty about – you need to tell members of Congress to expect a few phone calls in opposition to an integrated national data clearinghouse.

Many others who have already testified have done an excellent job explaining their support and making suggestions about how to implement the changes needed to actualize evidence-based policymaking. My contribution would pale in comparison.

I do want to emphasize the importance of place, of location. Everything happens in space and only rarely are two spaces alike. National goals for, say, graduation rates for at-risk youth are fine, but Baltimore is not Houston. Baltimore has its unique history and set of challenges relative to Houston. A 5 percent increase in graduation rates in Baltimore can't be compared to the same percentage point gain in Houston based on one policy intervention.

Many of you work and reside in Washington DC, or travel there extensively. Please don't allow a federal or national perspective to give short shrift to the primacy of place.

If I may close with a quick story. On December 21, my son asked me if "today" is the longest day of the year. Another son corrected him, "No, it's the shortest." "Not in Australia!" the first son corrected. Place matters.

Commission on Evidence-Based Policymaking

Using Evidence to Improve Programs and Inform Policy Decisions

Matthew Stagner, Senior Fellow
Mathematica Policy Research
January 5, 2017

For nearly 50 years, Mathematica has been dedicated to delivering high quality evidence and objective analysis to help policymakers and public program leaders uphold their missions to improve public well-being. As senior fellow and director of human services research in Mathematica's Chicago office, I want to thank you for the opportunity to contribute to the important work of the Commission with my testimony today.

Earlier this month, Mathematica President Paul Decker emphasized the importance of evidence-based policymaking in a letter submitted during the Commission's open comment period. Today, I will underscore several of Paul's key points while also highlighting my own experience in evaluating policies and programs for vulnerable youth and at-risk families. I will focus my comments today on:

- Effectively translating research evidence into actionable policy changes and program improvements
- Expanding access to administrative data in support of that research
- Ensuring that evidence used in policymaking is rigorous

I begin by highlighting how research can, and should, be translated into actionable policy changes and program improvements. I have seen this happen firsthand. For example, Mathematica is working with the U.S. Department of Health and Human Services, Office of Adolescent Health to expand the use and understanding of evidence-based programs to prevent teen pregnancy. Over the years, we have identified dozens of these programs that have demonstrated evidence of success in reducing sexual risk behaviors among adolescents. This is important because the federal government has invested millions of dollars to disseminate

knowledge about these programs and to implement and evaluate them in communities around the country. Currently, we are designing new evaluations of teen pregnancy and other risk prevention programs that build on this growing portfolio of research.

In work we are doing for the Administration for Children and Families (ACF), we are studying interventions designed to help former foster children who are at risk of homelessness and face significant challenges in the transition to adulthood. We provided evaluation technical assistance to state and local grantees as they developed comprehensive and innovative programs to support at-risk youth in making a successful transition to independent adult life. This project is helping strengthen these grantees' interventions and evaluation plans, build their local evaluation capacity, assess the evaluability of their programs, and document the progress they make during the planning period. It also provides insight into potential designs and implementation of broader programs intended to reduce homelessness among former foster youth. A key lesson from this is that building evidence can take significant upfront work with programs to make sure we evaluate approaches that are innovative, well implemented, and significantly different from existing services.

Also for ACF, Mathematica is evaluating the effectiveness of maternal, infant, and early childhood home visiting programs, which are designed to achieve better outcomes for mothers, fathers, and their babies. Adverse birth outcomes, such as low birth weight and preterm birth, are more common in the United States than in other developed countries, and they extract emotional and economic costs from families and communities. Our studies are providing evidence on which programs are effective in improving children's health and development, as well as other outcomes.

Conducting this work effectively, however, requires expanded access to sophisticated administrative data. For child welfare agencies in particular, the ability to link administrative data across systems and apply them to decision making can have a real impact on vulnerable children and families. Although administrative data give agencies the ability to inform program development and improve outcomes, expanded access comes with challenges, such as maintaining confidentiality and understanding the meaning and usefulness of data in the various human services systems. Learning to use these data effectively and efficiently requires expert guidance from state and local leaders who specialize in data systems, policy, and practice.

In one project for Casey Family Programs, we are examining administrative data in two states to identify children and youth who are heavy users of child welfare, Medicaid, and other services. Identifying subpopulations of children and youth who are continuously using intensive

services may shed light on those who lack support at critical junctures, are placed in overly restrictive environments, receive too many ineffective services, or are in need of better and different ways to meet their extensive needs. We expect this project to help child welfare and allied agencies achieve better outcomes for youth and families by tailoring more effective services to them earlier. We also expect that our findings will demonstrate the need for service coordination across systems to identify better strategies to serve these children.

Our project team has encountered some barriers in accessing the data, however. First, we live in a world of decentralized data, where each state or county collects and stores data in a different way. This leads to the need for many months of work to understand each data set, what it can provide for analysis, and what may be missing or inaccurate. Second, the privacy protection laws—important for preventing the misuse of information—can create long delays in access for legitimate policy research. We should seek ways to standardize data across jurisdictions, while allowing for some state flexibility, and also find ways to fast-track policy research requests while continuing to protect privacy.

Evidence used in policymaking must be rigorous, using a strong research methodology and starting with a carefully designed research question. I also support Paul's view that too often, policy is made using subjective judgment or poorly designed research. While randomized controlled trials (RCTs) are the "gold standard" of research methodology, high quality research can also encompass a wide range of research methods. Program managers seeking to refine a program may use descriptive or non-experimental analyses that help generate hypotheses about what is working and what is not. They may also use machine-learning methods and big data to predict which services might be most effective for each program participant based on his or her characteristics and needs. These managers could then propose changes to their program and evaluate these changes using an RCT or a quasi-experimental design (QED) before deciding to roll out the change widely.

For another ACF project, I am working with a team of researchers to explore the potential of advanced research methods and data to address unanswered questions about the incidence of child maltreatment. Although research on child maltreatment has advanced substantially over the past 20 years, new data and innovative research tools make it possible to better understand the incidence of maltreatment and related risks and, in turn, to improve practices and policies. Our findings will inform the direction of future research. We will draw on existing administrative data, innovative methods, and advanced statistical techniques by identifying and prioritizing key research questions and exploring innovative methodological approaches. In each design option, we will discuss primary research questions; describe how to access, use, and link relevant data

sources; identify relevant survey items and statistical analysis plans; pre-test instruments; estimate statistical power, respondent burden, and needed resources; and discuss the barriers, challenges, and feasibility.

The common thread running through all of the points and examples cited above is the importance of strengthening partnerships between the research community and the public policy and program communities. Working together more effectively and efficiently will help us achieve our shared mission to improve public well-being. Researchers can provide critical insights at all stages of policy and program design and improvement. In the same vein, government agency staff can be important partners throughout the research process by contributing vital perspectives on identifying and implementing evaluations and providing access to key data.

Fostering a culture of evidence throughout our federal, state, and local governments is essential to ensuring that policies and programs are developed and refined to meet the needs of our fellow citizens. I am honored to be able to present this testimony to the Commission today, and we at Mathematica look forward to following the Commission's work in the months ahead. I am happy to respond to any questions about my remarks today. Thank you.

**College of Liberal Arts
& Sciences**

RESPONSE TO COMMISSION QUESTIONS

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Commission on Evidence-Based Policy Making

February 10, 2017

Introduction

Chair Abraham, Chair Haskins, and distinguished members of the Commission, you asked me to address questions based on my previous testimony. My response is detailed below. I conclude with a discussion of logistical hurdles associated with access to these confidential data and a suggestion for how to provide access while maintaining confidentiality.

1. What are specific, actionable recommendations for how policymakers can be incentivized to encourage evidence-based policymaking?

This is a very hard problem. As I mentioned in my testimony, no bureaucrat has ever lost his or her job by saying "no" to a researcher request. Furthermore, policy-makers at the highest levels of federal agencies need to advocate for evidence-based policy. Essentially, evidence-based policy clashes with typical management decisions because a policy-maker needs to be willing to risk learning about bad outcomes. To fully take advantage of evidence-based policy,

the federal government needs to promote a culture of learning from evidence. Policies should be

implemented that do not punish policy-makers and administrators for revealing "bad news"

about a given program. Models of these types of changes can be found in evidence-based

medicine and evidence-based management. Jeffrey Pfeffer and Robert Sutton tackled the

challenges confronting managers and policy-makers in their book, *Hard Facts, Dangerous Half-*

Truths And Total Nonsense: Profiting From Evidence-Based Management. My

recommendations are based in part on their research.

First, evidence-based policy requires evidence. <u>The federal government should provide</u>

<u>funding for evidence-based research via the NIH and NSF</u>. The Science of Science and

Innovation Policy (SciSIP) at NSF provides a good model for how science agencies could fund

evidence-based policy research. SciSIP was created in response to John Marburger's call for

using evidence-based policy to understand the economic impact of the federal government's

scientific investments.   The science agencies have existing infrastructure that can be used to

facilitate evidence-based policy. For example, federal research funding could be used to support

the use of the data clearinghouse. In addition, the peer review process at the funding agencies

can be used to identify qualified researchers and projects.   The non-science federal agencies

should be allocated funds for the evaluation of their programs and have periodic reviews of their

programs in order to facilitate improved outcomes of federal investments. These programmatic

reviews should be conducted by individuals outside of the agency (for example, researchers who

have had their projects peer-reviewed) in order to provide an unbiased assessment of the

program.

Second, policy-makers in the federal government's Senior Executive Services (SES) need training and professional development in evidence-based policy and management.   According to Pfeffer and Sutton, "The Centre for Evidence-Based Medicine says that identifying and applying effective strategies for lifelong learning are the keys to making this happen for physicians. The same things are surely critical to evidence-based management."[1] The Office of Personnel Management offers several executive development courses for members of the SES including formal training, mentoring and executive coaching. The curriculum could be expanded to provide courses about using evidence in decision-making, an overview of research methods associated with evidence-based policy, and how to assess the quality of research studies that inform evidence-based policy.

Third, as evidence-based policy evaluations are put in place, a "negative outcomes" reporting system should be developed to facilitate learning from the unintended consequences of various policy initiatives. To incentivize admissions of "negative outcomes," policy-makers that report these unintended consequences would be held harmless as long as they take proactive measures to address policy shortcomings that they have identified. This system could be modeled on medical models of patient safety reports or the Aviation Safety Reporting System. The goal of a reporting system would be encourage the admission of negative outcomes and limit assigning blame. Using "negative outcomes" as additional evidence, policy-makers could then recalibrate policies with the goal of improving outcomes.

Finally, the federal government should encourage and fund experiments and prototypes before making wholesale policy changes. Although controversial, the Affordable Care Act (ACA) provides a good example of how this might work. The ACA was based on

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[1] *Harvard Business Review***,** January 2006 https://hbr.org/2006/01/evidence-based-management**.**

Massachusetts' universal health insurance law that was enacted in 2006 and the Oregon

Medicaid expansion lottery. The evidence from these state policies informed the implementation

of the ACA. Although no policy is perfect, the ACA has provided health insurance coverage for

over 18 million, previously uninsured people. As Congress debates changes to the ACA, an

evidence-based approach would slow the process of changing the program in order to experiment

with changes for the purpose of developing evidence on what works and what does not. For

example, states could be granted waivers to experiment with changes to the ACA. After three to

five years, the evidence associated with these state waivers will accumulate to show how the

ACA can be improved prior to making wholesale changes to national policy.

2. What other datasets, if any, would facilitate your work that are not currently accessible

    to you?

The federal and state governments collect terabytes of data that would be useful for my

research purposes. In general, I am in complete agreement with Commissioner Troske's

argument that if the federal government funds the collection of administrative data, then these

data sets should be part of the data clearinghouse. Below I list data that would facilitate my

work. While I have had limited access to some of these data sets, broader access would further

future research and evaluation for me and may others.

First, I recommend that the commission prioritize the creation of unique Protected

Identification Keys (PIKs) for all survey and administrative data that are included in the data

clearinghouse. Since almost all of my research and evaluation depends on linking individuals

that appear in several data sets, this would facilitate improved research and evaluation. Specific

data by research subject include:

K-12 Education and Social Safety Net Data

- The U.S. Department of Education funded the creation of the Kansas Individual Data on Students (KIDS), a student longitudinal data system (SLDS). These SLDS data for all states should be available to the federal government and researchers.

- Administrative records on state and federal social safety net programs could be linked to student records. Linking these data to student records would allow researchers and policy makers to understand the impact of social safety net policies on child's educational outcomes. These include administrative records for:

  - Temporary Assistance to Needy Families (TANF)

  - Supplemental Nutrition Assistance Program (SNAP)

  - Earned Income Tax Credit (EITC)

  - Women, Infants and Children nutrition (WIC)

  - Supplemental Security Income (SSI)

  - Head Start and other Pre-K program participation records

  - Medicaid Records

  - Childcare assistance records

  - Federal housing applications, support and vouchers.

- The ability to link employment records of parents from the LEHD and child support payments to student records in SLDS would allow researchers to understand the effect of income on child outcomes.

Higher Education Data

- Student administrative records from systems of higher education (e.g. the Kansas Board of Regents).   These data could be linked to the LEHD to understand the economic return to investments in higher education.   The University of Michigan Institute for Research on Innovation and Science (IRIS) has these records for about 20 universities. Having this information for federally funded colleges and universities would facilitate a deeper understanding of the private returns on the education investment as well as the impact of federal funding of graduate training in science and engineering.

Science Policy Data

The scientific agencies have a treasure-trove of administrative data that would facilitate the science of science policy studies. These data include:

- NIH IMPAC II extramural funding applications and awards data. It would be useful to create the ability to link principal investigator IDs to their publications in PUBMED.

- NSF Enterprise Information system data on applications and awards.

- Similar grant administration data from the Department of Defense, Department of Agriculture and Environmental Protection Agency

- Data from SciENcv: Science Experts Network Curriculum Vitae and My Bibliography from the National Center for Biotechnology Information.

- Information from iEdison that links patents to federal funding.

- A crosswalk that links scientists to their federal research funding IDs to publication record IDs such as Clarivate Analytics Researcher ID or ORCID.

- A crosswalk that links institutional IDs in federal funding research databases (e.g. the ID

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for the University of Kansas in NIH IMPAC II) to the Department of Education's

Integrated Postsecondary Education Data System.

- Information on state of residence and employer industry in the Science and Engineering

   Statistics Data System.

Internal Revenue and Social Security Earnings Records

- The ability to link Internal Revenue W-2 records and Social Security Administration

   disability and retirement records to federal survey data including the American

   Community Survey, Current Population Survey and Survey of Income and Program

   Participation data would facilitate improved estimates of labor market outcomes.

3. Logistical issues Associated with Access to these data.

Although the Commission did not ask me to comment on access to administrative data,

this is a pressing issue, and I would like to share my experiences. The Commission would like to

preserve the privacy and confidentiality of these administrative records. However, we have

encountered significant problems with existing models of confidential data access. The Research

Data Center (RDC) network has regularly experienced severe connectivity issues with accessing

data housed at the Census Bureau. These include losing access to Census data for hours or an

entire day as well as problems with password resets and security questions. In the programming

environment, large programming jobs can shut down an entire RDC. There is no plan to expand

the number of computing nodes at Census headquarters despite the addition of six RDCs this

year.   Thus, the RDC model as it currently exists would be over-burdened by the additional

demands of supporting a data clearinghouse.

One alternative to the RDC model is the NORC Data Enclave—a kind of private version of the RDC that allows researchers to connect to data secured at NORC via VPNs and secure laptops. Although this method provides more flexibility than the RDC, it is plagued by slow response to user requests and an inability for researchers to easily upload programs or data to the secure system.

One promising alternative would be to create a series of synthetic databases that could be used for research development purposes. Once researchers are satisfied with their analysis on the synthetic data, they could send their analytical files to Census or the Data Clearinghouse for validation on the internal data. A version of synthetic Survey of Income and Program Participation (SIPP) data matched to IRS and SSA records is now available (http://www.census.gov/programs-surveys/sipp/guidance/sipp-synthetic-beta-data-product.html).

Conclusion

Once again, I would like to thank the Commission for allowing me to testify about evidence-based policy. Researchers' access to administrative data has the potential to revolutionize policymaking and improve the functioning of all levels of government.

Hotz -- QFR's

- In your written testimony, you urged the Commission to investigate the various laws and regulations governing access to administrative records for research purposes. What are some specific examples of cases where Federal or state law or ambiguity around Federal or state law can be a barrier to accessing data?

The basis for my comments, as noted in a footnote in my testimony, is an National Research Council report, *Reengineering the Survey of Income and Program Participation*, edited by Constance Citro and John Karl Scholz. I attach a copy of this Report. I was a member of the NRC Expert Panel that produced this Report. The section of the report relevant for the Commission's question to me is Chapter 3, "Expanded Use of Administrative Records," pp. 58-64 in particular. This section addresses the following question:

> If you wanted to link state records for social programs, e.g., TANF, Medicaid, UI, Workers' Compensation (WC), and other case benefits, to a Census Bureau data set like the SIPP, are there legal barriers to Census acquiring these data?

To answer this question, the Panel commissioned a study by Professor Douglas J. Sylvester, who is the dean of the Sandra Day O'Connor College of Law at Arizona State University. I attach a copy of his final report on his findings. The pages noted above in the attached NRC report summarize his findings. Sylvester focused his analysis on 3 categories of state laws, constitutions and judicial rulings concerning confidentiality and access provisions that applied to 4 "sets" of programs (TANF, Medicaid, UI & WC, & other Cash Benefits) for each of the 50 states, giving a total of 200 = 50 x 4 state-programs. The 3 categories were: 1. Ready Access; 2. Restricted Access; 3. No Access. (See p. 59 of the NRC report for definitions and Table 3-1 on pp. 60-62 for the summary results.) **The Sylvester study concluded that 113 of the state-programs fell in Category 3 of No Access**. This finding is the basis for the comment I made in my testimony that the Commission has noted.

There are a host of qualifications to the above conclusion about access to state administrative records. Many are made in both the NRC report (pp. 63-64) and in the Sylvester final report. One of them is that the analysis undertaken by Professor Sylvester was not asked to examine provisions in federal law (see p. 3/22 in the Sylvester report) and I have nothing more I can say with any authority about the federal laws and titles that apply to this issue, beyond what the Commission already knows about such laws as CIPSEA, HIPAA, FERPA and the titles that govern statistical agencies like Census and the IRS. But I would draw the Commission's attention to pp. 18/22 of the Sylvester Report concerning the SSA Access to State Records Online (SASRO) operation that provides SSA to access to state-held records for various state-level programs like TANF, Medicaid and others. As I understand it, SASRO is a data-sharing program is for the purposes of the administration of SSA programs; I don't know that it covers uses "for research purposes."

Also, Sylvester notes on p. 18/22, several federal regulations (20 C.F.R. 401.110) apply to the sharing of data between SSA and the Census Bureau for "purposes of planning or carrying out of a census or survey or related activity…" Again, I don't have sufficient expertise to say anything

more about these provisions in federal statutes about data sharing, but I note them as potential federal provisions that seem relevant to the issue at hand.

- What datasets do you think are most vital for research and as such should be included in a federal data clearinghouse if the Commission were to recommend one be developed?

My preferences would be for the following data and administrative records to be included:

(1) SSA Master Earnings File and Benefits Files for all of the programs it administers (OASDI, SSI, etc.)
(2) IRS Records on Earnings, claiming for EITC and college attendance
(3) TANF and General Assistance from states, including non-cash benefits (e.g., child care and training)
(4) SNAP, WIC, CSFP and other food/nutrition programs
(5) Section 8 and other housing programs, including Low Income Home Energy Assistance
(6) Medicare and Medicaid (presumably from CMS) and SCHIP
(7) Child care (Head Start) and other programs
(8) UI and Worker's Compensation Records (from state)
(9) Death records

I also think that attention needs to be paid to getting other sources of data, including non-federal data that can be linked either to governmental admin records or surveys. These include:

(10) Credit Score data
(11) Student Debt (federal guaranteed and non-guaranteed)
(12) Housing data on housing values, foreclosures, etc.
(13) Health data, such as from Electronic Health Records from health care provider systems
(14) Place-based data like neighborhood crime data, access to food outlets by quality (e.g., food deserts and swamps) and access to other vital services (heath care facilities), "neighborhood walkability". The key for these data is being able to link it with to admin records of individuals and/or survey respondents by location.

These data are needed to assess the impacts and effectiveness of various federal (and state) policies.

I will stop here. Let me know if there is more you want on this issue.

TO: **Commission on Evidence-Based Policymaking**
FROM: **Virginia Knox, PhD**
                MDRC, Director of Policy Area on Family Well-being and Children's
                Development
RE: **Response to follow-up questions**
DATE: **February 10, 2017**

Thank you for the opportunity to provide additional input for the Commission's consideration. My responses are aimed at acknowledging the solid foundation that Congress has built for evidence-based policymaking and to indicate the most critical elements to include in future legislation. The discussion below draws on MDRC's forty-plus years of working with a variety of federal agencies to learn what works to improve the well-being of low-income individuals and families.

- **What specific, actionable recommendations do you have for the Commission related to building a culture of continuous improvement and building on tiered evidence strategies employed at ED, HHS, and Labor? What resources would be most helpful to agencies?**

Congress has already begun to build a culture of continuous improvement and to expect agencies to rely on evidence to make funding decisions. Therefore, some of the most actionable recommendations are a continuation of current trends in legislation that has used tiered evidence approaches, such as the Education Innovation and Research program that was created through the Every Student Succeeds Act. Congress can support evidence-based policymaking by clearly stating that:

a) Independent evaluations of programs and policies in the federal government are critical to making informed decisions about how federal resources are spent. This includes building a body of evidence over time that is aimed at informing high priority questions about the most efficient and effective allocation of public resources and design of policies and programs.

b) In fields where there is a rigorous evidence base upon which to make funding decisions, the majority of federal funds should be used for policies and programs that have evidence of effectiveness. Where there is not an adequate evidence base, or where there are important gaps in the evidence base, federal funds should be accompanied by evaluation requirements so that a base of evidence is built to inform future decision-making.

c) Even in fields that have a substantial base of evidence, federal funds can provide incentives for continual improvement and innovation to address newly emerging issues, by allowing a proportion of federal funds to be used for promising programs that need more research to determine their effectiveness.

d) Rigorous evaluation should be used to assess the impacts, benefits, and costs of policies and programs.

e) Evaluations should aim to not just measure current program effects but also to inform future improvement and decision-making. This can be done through research designs aimed at learning from variation in impacts where possible and by including implementation studies that examine issues such as the fidelity of programs to the intended policies or program models; local innovations and adaptations; the infrastructure needed to scale up the policy or program; and the mechanisms by which the program has its effects.

f) The tiered evidence strategy described above can be applied to existing funding streams by using the above principals and setting aside funding for research and evaluation. ESSA's provisions that reformed Title I are an example of movement in this direction. Other funding streams have also used research set-asides to help build a body of evidence that accumulates and provides newly needed information over time. These are typically 1% or more, depending on the size of the funding stream and the state of evidence in the particular field. Set-asides should preferably be structured so that the programs and the research that can improve their effectiveness over time are not put in the position of competing with each other for scarce public resources.

Evaluations using these set-asides can play several critical functions, including understanding the effects of *new* policies or programs; providing data-driven guidance about how to improve *existing* policies and programs over time; and to *refresh the evidence base* for programs in which the social and economic context has evolved since the original research was conducted.

- **Can you provide examples of where the "special rights clause" was used to limit the public release of the results of a program evaluation?**

In our experience, use of the special rights clause hampers efficient and effective evaluation. Federal contracting provisions governing data ownership establish the agency/contractor relationship in evaluation research, specifically how both quality control and independence are

maintained. Federal agencies have several options to strike the appropriate balance between the need for accountability on the part of the government and the need for independence on the part of the social policy evaluator. Use of the special rights clause (52.227-17) is an exercise of governmental control that undermines any claim to independence that is vital for social program evaluation credibility.

In our experience, it is usual for agencies to claim that its rights over the content and dissemination of reports derive from the special data rights provision. This provision prohibits the contractor from using, releasing and publishing any data produced during contract performance without prior written permission of the contracting officer. The provision, according to which government is given unlimited rights to all data, including copyright and release, is associated with restrictive governmental control over the contractor's work products: line editing and writing of reports prepared by the contractor; delays in the release of findings to accommodate politically-motivated review; the ability to forbid release; and, the assertion of total control by the government over individually identifiable survey and administrative data that the contractor is collecting as part of its impact analysis. However, this exercise of governmental control undermines the independence and transparency that is vital for social program evaluation credibility. And it is contrary to the purpose of the special rights clause, which is to govern the production of data for the *internal use* of government.

Further, the clause's severe restriction on publication raises major issues for work with universities, which hold academic freedom principles that do allow work on federal contracts including the special rights clause. We have witnessed considerable inefficiencies in the use of federal resources for evaluation because universities who would have been the highest quality or lowest cost partners in a federal contract were unable to sign a subcontract that includes this provision. This has led to delays or increased management costs in two different ways: We have held protracted discussions about mitigating the effects of this clause so that the university is able to be part of the research team, or the university partner has simply had to leave the planned team and we have had to spend time and resources identifying other partners.

There is a solution to this problem. The general rights in data clause contains "alternate provisions" that are mandated in contracts for basic and applied research with universities or colleges and are permitted in other contracts upon agency determination that the alternate provision is appropriate. Federal agencies can ensure research independence by using Alternate IV of the general rights in data clause of the FAR (52.227-14 Alternate IV), rather than the special rights clause, in policy evaluation contracts.

Alternate IV mandates agencies to allow contractors to copyright any data first produced "in contracts for basic or applied research…to be performed solely by universities and colleges." Alternate IV also permits agencies to use the same provision in other contracts when the agency determines that the contractor should have permission, the same as given academic institutions, to claim copyright in any data produced during contract performance. This is blanket permission, extending beyond the limited permission for scientific and technical articles already set forth in 52.227-14.

Alternate IV directs agencies to loosen the restrictions that apply to contractors under the general rights in data clause when those contractors are colleges or universities performing applied or basic research OR when the agency determines that similar treatment is warranted for other contractors. And, of course, the section recognizes governmental interests by awarding an unlimited license to government for all data other than computer software.

Government contractors performing evaluations are conducting applied research. The interests of research organizations like MDRC in producing high quality independent evaluations and disseminating results are no different from academic institutions that are engaged in the conduct of applied research. Governmental interests in ensuring that the evaluation is conducted independently, with quality controls imposed by the sponsoring agency, can be rigorously advanced regardless whether the evaluation is conducted by a government contractor or a university.

With Alternate IV as the baseline, agencies can use Section H of the contract, which contains particular clauses related to contract performance, to set review requirements consistent with appropriate oversight, quality control and the goals of the general rights clause. For example, the agency can stipulate in the contract a reasonable period of time for agency review of the evaluator's findings, a process for making comments and suggestions regarding the contractor's reports, and an opportunity for the agency to attach to the final report any dissenting opinion regarding the contractor's findings. Such conditions regarding the use or release of data can also be inserted into the contract's scope of work or in an appendix. These provisions, tailored to the specific context of a research project, can accommodate the agency's need to ensure that its views are incorporated into a final report with the evaluator's need for independence in producing the report.

In sum, contracts drafted using Alternate IV advance the objectives of research independence and reliable evidence unfettered by agency censorship or interference and allow for efficient partnerships across the research community.

- **You described several administrative and procurement obstacles that evaluators face. Which one or two do you see as the biggest barriers to expanding evaluation capacity**?

Two obstacles are fundamental.

a) It is of critical importance that Congress affirm that data that are collected for research purposes may not be used by federal agencies for any other purpose, including enforcement activities. As a general rule, federal agencies should not require the transfer of individually identifiable data from the research contractor to the federal agency during or after contract performance. Sometimes, however, such a transfer is necessary or beneficial for the work, and when that is the case, the government must be able to provide assurances to study participants that data collected for research purposes will not be used for any non-research purpose, including enforcement.

Identifiable data should not be transferred to the government because such disclosure has the unintended consequences of reducing the completeness, validity, and value of the research to the federal government. As required by human subjects regulations and ethical principles for research, research contractors must inform potential research subjects of how their data is to be used. Researchers want to be able to assure potential subjects that the data the subject provides or authorizes for collection will be held confidentially, to the extent permitted by law, by the researcher and the researcher alone. Requiring that the research contractor inform prospective research subjects that their private information may be provided to a federal agency is highly likely to have a chilling effect on the ability of the research contractor to enroll study participants or, once enrolled, to collect reliable and complete answers to survey questions and access to other private information. Once in the possession of the governmental agency, subjects' individually identifiable information might be subject to a myriad of unrelated government purposes, and even public release under the Freedom of Information Act (FOIA).

On occasion, there is a research need for a federal agency to handle the identifiers of individuals who have agreed to participate in an independent evaluation. This has come up either because an agency can help the researchers gain access to administrative data that the agency possesses or because for procurement reasons the agency wants the flexibility to continue the study with a different contractor, and to accomplish this they need access to the identifiers for members of the research sample. In these circumstances, there is an inherent tension between the needs of the research and the necessity of a confidentiality pledge to the research participants. The governmental agency often cannot make the same commitment to confidentiality that a research organization can make, because of statutory requirements regarding access to data held by the government. This means that a clear

statutory commitment that agencies may not use research data or the identity of individuals participating in federal research for any purpose other than conducting the research is needed. That assurance would make it more likely that people will continue to participate in research despite the increased sharing of research data or identifiers that may be needed occur as data systems become more integrated and accessible for a variety of research purposes.

Such an affirmation could be similar to the Confidential Information Protection and Statistical Efficiency Act (CIPSEA), which protects data collected by federal statistical agencies.

b) Reforming the Paperwork Reduction Act to facilitate research and evaluation would facilitate a wide range of data collection efforts. Without this change, agencies will be stopped in their tracks as they try to take advantage of the kinds of quick turnaround evaluations that could -- with the help of emerging technologies -- transform the quality and frequency of continuous program improvement activities in the coming decade.

An example of a productive reform would be to develop standards for providing agency research and evaluation offices with delegated authority to review and approve Paperwork Reduction Act clearances for planned evaluations.[1] Authority could be delegated to agencies, for example, if they (1) have robust evaluation capacity that routinely utilizes the most rigorous and appropriate evaluation design for the questions being asked; and (2) use existing administrative and survey data when possible.

- **MDRC has conducted numerous evaluations of Federal human service programs under the authority of Section 1115 of the Social Security Act. To what extent do you think this provision or authority has encouraged evaluation that may not have otherwise been conducted? Is it worth considering such an authority for other types of programs? Is there a model statute that allows for independent evaluation and ensures that structures and resources are available to conduct such evaluations?**

Yes, a substantial amount of experimentation that occurred in the past four decades would not have been possible without the waiver authority provided under Section 1115. The welfare-to-work experiments that were conducted by MDRC and others in the 1980s and 1990s[2] are an

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[1] For additional details of potential PRA reforms, see Feldman, A. (2016). *Strengthening Results-Focused Government: Strategies to Build on Bipartisan Progress in Evidence-Based Policy*. Washington, DC: The Brookings Institution.

[2] Gueron, J. M. and Rolston, H. (2013). *Fighting for Reliable Evidence*. New York, NY: Russell Sage Foundation.

example of an agency and researchers using this authority to create a coherent body of evidence that informed future policy.

However, the waiver process is just the starting place for building rigorous evidence. Giving an agency the authority to waive current rules does not guarantee that evidence will be built. In fact, there are cases (such as No Child Left Behind) in which a waiver process was established without a requirement of rigorous evaluation, and the federal government lost the opportunity to inform future decisions with strong research. Therefore, if waiver authority is used as one of the foundations for evidence-based policy, it is critical for it to be accompanied by the following provisions:

Any waiver statute should:

1. Require rigorous evaluation to measure the impacts, implementation, and costs of the new approach compared to current policy, with adequate sample sizes and research designs that can reliably answer the questions being asked. Where cost neutrality is required in the waiver authority, rigorous evaluation should be used to reliably ascertain whether cost neutrality was maintained.

2. Authorize the agency's Office of Research to review the research designs of proposed evaluations of waiver activities. To maximize the reliability of research results, their ratings of evaluations should give preference in impact designs to those that rely on random assignment.

3. Include a set-aside of at least 1% for research and evaluation, and in some cases a higher percentage.

4. Include periodic audits by GAO to monitor the number of waivers granted, the use of evaluation for program improvement purposes, and any other requirements.

5. Authorize the funding agency to request evaluators to communicate what they are learning to the state or local programs that are participating in the study while the study is still going on, to the extent that such communication will not undermine the study's ability to answer the particular research questions that are agreed upon. Such communication can improve the efficiency and effectiveness with which federal resources are being used even during the period of the evaluation, and can increase the benefits that state and local evaluation sites receive from the time and effort they contribute to the study.

6. For some kinds of waiver-based experiments, it can be useful to provide an incentive for the private sector to contribute to the initiative by requiring programs that apply for grants to provide matching funds.

Date: February 13, 2017

To: Commission on Evidence-Based Policymaking

From: Tom Schenk Jr,
        Chief Data Officer, City of Chicago
        Chair, Civic Analytics Network, Harvard University

RE: Follow-up Input on CEBP mission as defined in Public Law 114-140

It was my pleasure to have an opportunity to provide verbal testimony to the Commission on ways to increase evidence-based policy in our government. The conversation was very helpful and I hope I was able to provide some useful information to members of the Commission. I am following-up on my testimony to provide clarity and more information based on our conversation.

Briefly, my verbal testimony discussed the following ideas:
- Local governments, like Chicago, need to be able to share data between our own departments and between levels of government (e.g., county, state, and Federal governments) to provide better services. We face a number of challenges in this respect, including privacy laws that are interpreted in various ways that increases the time to create data-sharing agreements.
- Commission members should avoid the immense task of building a central Clearinghouse of data; instead, focus on smaller hubs that are topically relevant. This approach is *not* for security reasons, but simply for the pragmatic way to provide some central data services.
- Instead, the Commission should recommend a service where data is merged and deidentified. This service should be a paid service to help fund the activity itself.

Members of the Commission had a number of questions and asked for more details in each of these categories.

Data Sharing Within Government
Since providing testimony, I have reached out to my peers in the Civic Analytics Network—a network of 24 municipal Chief Data Officers (or similar roles) based out of Harvard's Kennedy School of Government and which I am currently serving as a chair. Below, I have incorporated their feedback to provide more detail on the challenges facing cities in using data for evidence-based policy.

Privacy laws are broadly written to provide guidance on sharing data between governments, researchers, private companies, community groups, or anyone else who may want to access education, health, workforce, and other records. However, the experience of anyone seeking data

sharing agreements—including attempts to share relevant data between government departments—is frustrating because of the high degree of local interpretation of privacy laws. Two reasonable attorneys can have different interpretations of the same provisions of privacy laws.

For instance, interpreting the "hard-code" and "minimum necessary" rules from HIPAA has caused difficulty in sharing data. Due to the ubiquity of data that could potentially contain health information, HIPAA guidelines are often used for non-health data decisions, as a precaution against the possibility of the inclusion of some health data.

Subtle but significant differences in legal terminology such as "permit", "prohibit", "allow", "may", and "shall", to name a few. Often, the laws are vague and exhaustive at the same time, such as the HIPAA requirement of the "minimum necessary" use and disclosure of data, which has its own set of complex and subtle rules and exceptions which contain language such as "reasonable steps" and "minimum necessary to accomplish the intended purpose." The reality of this framework is that a very limited number of experts fully understand the privacy laws that govern an entity's activities.

It would be much easier if FERPA / HIPAA / CORI / etc. gave clear guidance about appropriate uses of protected data by affiliated partner organizations and details how about what those partners need to do on their end to ensure privacy protections are maintained (standards for data security, removal of PII, etc.), and (critically) absolves the source agencies of liability if they share in good faith and the recipients don't hold up their end of the bargain. The big worry that impedes sharing even when there is a legal justification is that the data owners remain liable for what their partners do, so that provides a strong disincentive.

Avoiding a Clearinghouse – not because of information security

I proposed that the Commission avoid the task of creating a central clearinghouse of data. The reason to avoid this is because such clearinghouses are extraordinarily difficult to build and attempt to serve all audiences, thereby, tend to serve no audience very well. While the concept of a clearinghouse is attractive, it is not practical.

Others who testified with similar recommendations had mentioned it was partly due to security reasons. Generally, it was argued that decentralized data sources would make it harder for hackers or anyone with dubious intentions to quickly download personal data and subsequently selling the data, providing it to others, or using it in other inappropriate ways.

However, this is dubious. If a Clearinghouse was formed, that does *not* imply the data would be in the same physical location or anyone who accessed the system would have automatic access to

all of the data. That is, data sitting on the same physical computer can be separated so data is separated. In a simple example, many basic computers have the ability to setup distinct users. While all of the data is stored on the same physical drive, no one user needs to have access to all of the data stored on the computer. This notion is *logical* separation of data.

For example, hackers have certainly accessed the systems of social media platforms. Often, you will see these companies clarify which data was precisely accessed. That is because "hacking" a system does not imply all of the data is compromised. Architects of data warehouses—such as a Clearinghouse—use logical separation throughout the system.

This is an important distinction because the most significant risk is the people who can access the data regardless if it is in a central Clearinghouse or stored in various physical locations. If academic researchers are able to combine data, that will naturally increase the risk that the professor, postdoc, research assistant, or anyone else with access to the data could make a mistake, such as storing data on a flash drive[1] or laptops[2] and losing it, or simply sharing the data through email or cloud-storage (e.g., Dropbox) accounts because of elaborate scams[3] or mistakes[4].

The Commission needs to be aware of the true source of risk so it can make recommendations to mitigate those risks. Researchers who access any linked data should have very strict rules on the use and storage of data, such as never storing it on unencrypted flash drives or other mobile devices that could be lost or stolen. The Commission should even consider that the storage of such data should only be on computers that are disconnected from the internet and data must only be stored on encrypted hard drives that meets NIST standards[5].

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[1] Greenberg, Adam. "Lost flash drive compromises data for thousands of students". *SC Magazine*, August 12, 2013. https://www.scmagazine.com/lost-flash-drive-compromises-data-for-thousands-of-students/article/541926/
[2] Keane, Jonathan. "Why stolen laptops still cause data breaches, and what's being done to stop them". *PCWorld*, January 13, 2016 http://www.pcworld.com/article/3021316/security/why-stolen-laptops-still-cause-data-breaches-and-whats-being-done-to-stop-them.html
[3] McKinnon, Ryan. "Email Scam Threatens School Employee Data". *GovTech*, February 7, 2017 http://www.govtech.com/education/Email-Scam-Threatens-School-Employee-Data.html
[4] Owens, Adam. "Wake schools sent postcards containing Social Security numbers". WRAL, December 4, 2009 http://www.wral.com/news/education/story/6547340/
[5] National Institutes of Standards and Technology. *Security and Privacy Controls for Federal Information Systems and Organizations*. NIST Special Publication 800-53. April 2013 (revised January 22, 2015) http://dx.doi.org/10.6028/NIST.SP.800-53r4

MATHEMATICA
Policy Research

MEMORANDUM

TO: Commission on Evidence-based Policymaking

FROM: Matthew Stagner   **DATE:** 2/8/2017

SUBJECT: Responses to follow up questions

Thank you again for the opportunity to testify to the Commission and for the follow up questions. Below are the questions you asked and my brief responses. Please let me know if there are further ways that staff of Mathematica Policy Research or I, in particular, can be of assistance. We look forward to following the work and publications of the Commission and wish you well in your work.

You noted the importance of strengthening partnerships between the research community and the public policy and program communities. Do you have specific suggestions the Commission could consider to do this? Are there examples of such partnerships that have worked well?

Thank you for the opportunity to elaborate on this issue. We believe there are multiple approaches to continue testing and strengthening research-policy partnerships. A first step in improving this relationship is improving the layering of evaluation requirements and technical assistance. When federal grant funds require rigorous evaluation, agencies should ensure their

MEMO TO: Commission on Evidence Based Policy
FROM: Matthew Stagner
DATE: 2/8/2017
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grantees get adequate funds to support local evaluation and technical assistance. Rigorous

evaluation can feel like it is "taking money away" from grantee activities, but there is a strong

"public good" case for building an on-going evidence base. On top of this, we have found that

significant evaluation technical assistance efforts can help local evaluators improve the quality

and usefulness of their evaluations. If grantees, their evaluators, national technical assistance

providers, and federal agencies work together, the evidence base will grow quickly. We are

engaged in many such technical assistance efforts for the Department of Health and Human

Services and the Department of Education, including the Regional Education Laboratory

program and the Youth At-Risk of Homelessness (YARH) program.

Second, the commission may want to enhance role of associations and institutions that

already bring together researchers and policy makers. Federal agencies could encourage

policymaker membership organizations, such as the American Public Human Services

Association, to include researchers in their activities. Through this process, researchers will hear

what is most on the minds of state and local policy makers and will learn more about the contexts

and constraints facing policy makers as they attempt to use evidence. It may also help to have

research organizations such as the Association for Public Policy Research and Analysis connect

more frequently with policy makers. These associations may help to bridge the "cultural divide"

between researchers and policy makers.

Third, federal efforts to improve the training of researchers should focus on the important

skills of conducting practical evaluation research. The next generation of researchers will need

to listen carefully to policy makers' needs and assess the best methods for working quickly to

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address those needs. Training programs for social scientists, such as the Department of

Education training programs, could be encouraged to do more to build these skills.

Finally, the commission may want to consider supporting expanded federal efforts that

specifically build and enhance such partnerships. One such effort is the Researcher-Practitioner

Partnerships in Education Research, funded by the Department of Education, Institute of

Education Sciences. These grants focus on building long-term relationships between policy

makers and local researchers. The partnerships carry out initial research on education issues of

interest to policy makers and develop plans for future research. Through this joint research, an

education agency's capacity for taking part in research and using research results can increase.

Funding goes to launch new partnerships and to support the expansion of existing partnerships.

This model may transfer to other policy areas beyond education, particularly human services

efforts.

What datasets do you think are most vital for research and as such should be included in a

federal data clearinghouse if the Commission were to recommend one be developed?

From the Chicago hearing, it appears that much of the Commission's focus has been on data

from the education and labor areas, such as earnings tracked in the unemployment insurance

system or by the Internal Revenue System. Therefore, we focus on other others that may not

have received as much attention, particular issues of health and disability. Without these data,

findings on the connections between education and labor market outcomes may be misleading.

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To support research in disability, health and retirement policy, the federal data clearinghouse should include the Social Security Administration's (SSA) administrative and survey data, as well as the Rehabilitation Services Administration's administrative records on state vocational rehabilitation services (annual RSA 911 file). SSA has developed and maintains several analytic files built from multiple administrative file to support internal researchers.

The largest of these is the Disability Analysis File, which contains the most recent 10 years of records on SSI and SSDI applications and disability awards (about 2.5 million records). This database includes a longitudinal record for every Supplemental Security Income or Social Security Disability Beneficiary between the ages of 10 and 65 from 1996 forward (on the order of 25 million records). SSA also maintains a historical Continuous Work History File including a 1% sample of all workers and beneficiaries that is extremely valuable for long-term research and not available to researchers outside of the agency.

Researchers have used SSA administrative data, including the Disability Analysis File, to link to other administrative records that include Vocational Rehabilitation and earnings information. For example, recent SSA research studies have used SSA administrative data linked to the RSA-911 and the Master Earnings File (the SSA file that contains IRS earnings histories) on a regular basis.

Other important sets of data are Medicare and Medicaid records maintained by the Centers for Medicare and Medicaid Services (CMS) and records from the Department of Veterans Affairs, though record linkages between these sources and SSA administrative data are less common. A useful clearinghouse would support linkages between SSA records and state

program records, including Medicaid claims, unemployment wage and benefit records,

vocational rehabilitation records, workforce system records, and public education records.

SSA has also conducted large survey efforts of beneficiaries to gather information not

included in administrative records. For example, SSA's National Beneficiary Survey, which is

routinely linked to administrative records, includes several rounds of data collection for a

nationally representative survey of SSI and DI beneficiaries.   SSA also conducts surveys as part

of demonstration efforts that can serve as additional sources of information about demonstration

participants. It would also be useful to include the one-time National Survey of Child Recipients

and Families, with linked longitudinal administrative records.

National surveys are another potential source of record linkage, particularly for SSA

administrative data.   Specifically, it would be very valuable to include the surveys that SSA,

HHS and Census routinely link to SSA and other administrative records now: six National

Center for Health Statistics Surveys (many for multiple years), the Health and Retirement Study,

the Survey of Income and Program Participation, and the Current Population Survey. Although

these surveys are more accessible to policy researchers than most SSA administrative data, they

remain difficult to access. Maintaining them in a clearinghouse and making them more

accessible would improve synergies between survey and administrative data.

A final consideration is the potential to use administrative records from a clearinghouse to

facilitate web-based surveys. This approach is low cost and an added advantage of broadening

access to administrative data. Administrative data provides a shallow look at a full program

population, and web-based surveys of a sample drawn from that population can provide much-

needed context and a deeper view of particular issues. A recent article by Jaszczak, Sevak, and

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Wright entitled "Personal Characteristics of VR Applicants: Findings from the Survey of

Disability and Employment" (now under review) provides an example of such a study, focused

on a vocational rehabilitation population.

PARENT COALITION FOR
STUDENT PRIVACY

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10 February 2017

Commission on Evidence-Based Policymaking
Washington, DC

Dear Commission Members:

Thank you for requesting additional information about the Parent Coalition on Student Privacy's position on unit record systems. Below we address all three of the Commission's follow-up questions:

- *Can you please clarify whether your objection is to unit record systems for elementary and secondary school students or if you also object to unit record systems for postsecondary students?*
  See the discussion of this issue below.

- *You argue for local control of student data and specifically for parental and teacher data stewardship. At what point should adult students in postsecondary education become the stewards of their own data?*
  The control of their data should pass to post-secondary students when they become adults, as occurs currently in Federal law.

- *Would your concerns about the intrusiveness of a student-unit record system be mitigated if the data were only maintained without personal identifiers that could be used to track an individual student, and if there were statutory protections that guaranteed that the data could only be used for aggregate, statistical analysis?*
  No, because data can easily be re-identified. If only aggregate data is used, only aggregate data should be collected.

We have significant reservations about the creation of any universal unit record system for students, whether for elementary, secondary or post-secondary students.

Elementary and secondary student unit record systems present a particular set of risks because the majority of information in a child's K12 educational record should not be made "permanent." Childhood is a time of growth, experimentation and development; and mistakes and challenges should not be part of a record that could follow one into adulthood and hamper a child's chance of future success.

A unit record system for post-secondary education does not present an identical set of concerns. Students in post-secondary institutions do expect that some aspects of their transcript, including grades and credits, will persist into adulthood with the expectation of being shared with employers and other educational institutions—with their consent. Yet other contents of their education records should never be made public.

Records from these years may also contain sensitive information about immigration status, counseling records, mental and physical health and disabilities, etc. At the age of 18, control of the record is

transferred from a parent or guardian to the students themselves, but, crucially, privacy controls are still maintained.

We have several concerns about the need for and use of any universal post-secondary unit record system:

1. The efficacy of methods to de-identify or anonymize personally-identifiable data is questionable. De-identified data can often be re-identified and exposed.[1]
2. The government should not have access to a comprehensive database for all post-secondary students as this information could be easily abused for political or immigration reasons. This is especially of concern given the current political climate. The Home Office in Great Britain has now requested access to a similar government student database for the purposes of "immigration control" that was promised to only be used for research.[2]
3. Once the federal government starts collecting post-secondary data, this could easily lead to a creeping expansion of data collection from K12 institutions and districts.
4. The quality of research based on large-scale correlational studies is of greatly varying quality[3] and does not justify the risks of universal tracking.
5. Large amounts of data used for the purposes of evaluating post-secondary institutions' effectiveness are already available, including the Department of Education's College Scorecard, the Mobility Report Card Project—a collaboration of the US Treasury and the Department of Education, and the privately-run National Student Clearinghouse.
6. Extensive regulations have already been implemented to ensure that post-secondary institutions are protecting student's long-term financial interests, e.g. Negotiated Rulemaking on Gainful Employment implemented in Fall 2014.

We acknowledge that given the investment of taxpayer funds that support institutions of higher education, the federal government has a strong practical interest to make certain that those funds are being used efficiently and effectively.

We do not, however, think that a universal student record system created and administered by the federal government is a necessary component of fulfilling that interest and duty.

The federal government spends billions of dollars in medical research and health care as well, and yet there has been no proposal that we know of for the federal government to collect the personal health data for every person in the United States.

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[1] See, for example, the research of Latanya Sweeney on identifiability.

[2] "The Home Office are turning teachers into immigration officers" G. Bhattacharyya. *Politics.co.uk.*

[3] See discussion from a variety of fields (medicine, psychology and linguistics) in "Data dredging, bias, or confounding." Smith, G.D. and S. Ebrahim. *BMJ*. 2002; "Why Most Published Research Findings Are False." Ioannidis, J. P. A. *PLOS Medicine.* 2005; "False-Positive Psychology: Undisclosed Flexibility in Data Collection and Analysis Allows Presenting Anything as Significant." Simmons, J.P., L.D. Nelson and U. Simonsohn. *Psychological Science.* 2011; and "Linguistic Diversity and Traffic Accidents: Lessons from Statistical Studies of Cultural Traits." *PLoS ONE. 2013.* Roberts S. and J. Winters.

We support only the use of aggregated student data for the evaluation of postsecondary institutions. The collection of such data must include asking for consent for participation from either a parent/guardian or the students themselves if over the age of 18. Clear, transparent information about how any data is to be used and who it may be shared with must be presented before asking for consent. And, there should be no financial benefit or loss contingent on granting the consent.

We continue to urge the Commission to recommend against the creation of any universal federal student unit record system.

On behalf of the Parent Coalition for Student Privacy,
Sincerely,

Cassandre Creswell, PhD
Co-executive director
Raise Your Hand Action
Chicago IL

San Francisco Public Input–Hearing Testimony

Mary Ann Bates, J-PAL North America,
Massachusetts Institute of Technology

Submitted January 26th, 2017

Written Statement for the Commission on Evidence-Based Policymaking
Public Hearing in San Francisco, February 9th, 2017

Introduction

The Abdul Latif Jameel Poverty Action Lab North America (J-PAL NA), based in the Department of Economics at the Massachusetts Institute of Technology, leverages scholarship from 143 affiliated professors to generate and disseminate rigorous evidence about anti-poverty policies. J-PAL NA provides pro-bono technical support, capacity building, and matchmaking with researchers to government agencies and nonprofits seeking to design and implement randomized evaluations, many of which rely extensively on administrative data. Affiliates in our network have conducted 154 ongoing or completed randomized evaluations in North America across sectors such as health care, housing, criminal justice, education, and labor markets. J-PAL NA also creates training materials to build research capacity, including a comprehensive, practical guide to obtaining and using administrative data for randomized evaluations.[1] We appreciate the opportunity to submit a statement to the Commission on Evidence-Based Policymaking.

J-PAL affiliated researchers have relied heavily on administrative data to conduct policy-relevant research. Data from IRS tax records enabled an almost 20-year follow-up of families involved in the Moving to Opportunity Experiment. The follow-up study demonstrated that young children who moved to low-poverty neighborhoods increased their college attendance and expected lifetime earnings.[2] Data from the U.S. Department of Education, the Ohio Board of Regents, and the National Student Clearinghouse collectively enabled a randomized controlled trial showing that simplifying the financial aid application process increased college attendance and persistence.[3] Data from hospitals in the Portland area revealed that Medicaid insurance, for which opportunities to apply were allocated through a lottery in Oregon, increased emergency room usage by 40 percent.[4] Access to administrative data was critical to generating these insights.

Executive Summary

This statement reflects J-PAL's expertise concerning randomized evaluations, administrative data access, and collaboration between government agencies and external researchers. It

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[1] Feeney, Laura, Jason Bauman, Julia Chabrier, Geethi Mehra, and Michelle Woodford. "Using Administrative Data for Randomized Evaluations." J-PAL North America. December 2015. https://www.povertyactionlab.org/sites/default/files/documents/AdminDataGuide.pdf
[2] Chetty, Raj, Nathaniel Hendren, and Lawrence F. Katz. "The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment." NBER Working Paper #21156, May 2015.
[3] Bettinger, Eric P., Bridget Terry Long, Philip Oreopoulos, and Lisa Sanbonmatsu. 2012. "The Role of Application Assistance and Information in College Decisions: Results from the H&R Block Fafsa Experiment." The Quarterly Journal of Economics 127(3):1205-42.
[4] Taubman, Sarah, Heidi Allen, Bill Wright, Katherine Baicker, Amy Finkelstein, and the Oregon Health Study Group. 2014. "Medicaid Increases Emergency Department Use: Evidence from Oregon's Health Insurance Experiment." Science 343(6188):263-8.

incorporates recommendations from an open letter penned by several leading economists, including multiple J-PAL affiliates[5], and a short paper published by a subset of the same authors.[6] This comment elaborates on these key recommendations:

- Establish clear data documentation and standard data request forms, building on the example set by the Centers for Medicare and Medicaid Services.
- Expand secure access to real microdata to qualified researchers, prioritizing secure remote connections while also increasing capacity at Census Research Data Centers.
- Develop a data clearinghouse within the Census Bureau for currently hard-to-access data, particularly microdata on earnings and income, and link the data across agencies.
- Avoid flat per-user fees for data access to encourage validation and double-checking of data analysis.
- Clearly articulate program objectives and build ongoing process evaluation into every program to lay the foundation for impact evaluation.
- Institutionalize a process for identifying questions for program evaluation and appropriate conditions for randomized evaluations, focusing on three cases:
    - Demand for a program exceeds capacity to supply the program.
    - Gradual roll out of a program to different individuals or locations over time.
    - Refinement or reconsideration of eligibility criteria for a program.

Responses to Specific Questions Posed in the CEP Request for Comments

3. Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?

Build on the example of the Centers for Medicare and Medicaid Services to establish clear data documentation and standard data requests.

Existing government data infrastructure should incorporate standard data request forms with clear data dictionaries, using the Centers for Medicare and Medicaid Services (CMS) Research Data Assistance Center (ResDAC) data documentation as a model of best practices. The ResDAC system allows researchers to understand specifically what variables are available and to submit requests with data protection plans. Because the ResDAC system allows CMS to review those requests systematically as opposed to on an ad hoc basis, ResDAC facilitates routine, secure access to administrative data that culminates in several hundreds of medical studies each year.[7]

Applying the ResDAC model to an administrative data clearinghouse or other data repositories would allow researchers to see exactly what variables they are permitted to request, along with a

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[5] Card, David, Raj Chetty, David Cutler, Steven Davis, Martin Feldstein, William Gale, Jonathan Gruber, Michael Greenstone, Caroline Hoxby, Lawrence Katz, and Emmanuel Saez. 2010. "An Open Letter on Expanding Access to Administrative Data for Research in the United States. https://eml.berkeley.edu/~saez/dataaccess_final.pdf

[6] Card, David, Raj Chetty, Martin S. Feldstein, and Emmanuel Saez. "Expanding access to administrative data for research in the United States." *American Economic Association, Ten Years and Beyond: Economists Answer NSF's Call for Long-Term Research Agendas* (2010). https://eml.berkeley.edu/~saez/card-chetty-feldstein-saezNSF10dataaccess.pdf

[7] Ibid.

brief description of each variable, before submitting a request. This explicit listing of available variables would enable data discovery and save program administrators and researchers hours of valuable time by avoiding long correspondences about whether the desired data exist. Publicizing exactly which variables exist and what agency houses the data increases transparency with no risk of revealing personally identifiable information. Better data documentation can thus facilitate use of and access to administrative and survey data without raising concerns for data security and privacy protection.

Moreover, sensitive variables that would trigger additional levels of review or security could be clearly labeled as sensitive as part of this clearer data documentation. Currently, researchers may request a variable that is not central to their analysis, without realizing that it captures sensitive information. This could delay or jeopardize the entire request or allow access to sensitive data that, with clearer data documentation, would not have been requested from the agency.[8]

4. What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation, and analysis purposes?

Expand secure access to microdata to qualified researchers through remote and on-site connections rather than creating synthetic data.

An optimal infrastructure for integrating administrative, survey, and statistical data to facilitate research and evaluation while ensuring data security and privacy will provide secure environments where qualified researchers can directly access microdata. Microdata enable researchers to perform more informative analyses by controlling for individual characteristics (such as educational attainment or race) to better determine the impact of a program. Microdata also allow researchers to evaluate how a program affects specific subpopulations, such as low-income individuals. Researchers can use microdata to validate and adjust their analysis as they learn from the data in real time—a crucial step in the research process. Moreover, for analysis in rigorous randomized evaluations, researchers require microdata to link individuals to their treatment status.

There are currently twenty-four Federal Statistical Research Data Centers (RDCs), which are physical, secure environments established through partnerships between the Census Bureau and research institutions where researchers who have undergone special sworn status can access restricted microdata. However, capacity in these RDCs is limited, both physically and according to Census bandwidth, and access is artificially restricted to researchers based on geographic proximity rather than on the merit of their research proposal.[9] Similar constraints apply to researchers working with statutorily restricted tax data through contracts with the IRS Statistics of Income Division (SOI)—the type of arrangement that enabled the Moving to Opportunity follow-up study. The SOI is small, has a limited budget, and can accommodate few research projects at a time.[10] More secure, direct access to microdata should be provided in two ways: (1)

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[8] Feeney et al., "Using Administrative Data for Randomized Evaluations," 2015.
[9] Card et al., "Expanding access to administrative data," 2010b.
[10] Office of Management and Budget, *Barriers to Using Administrative Data for Evidence-Building* (white paper submitted for the Commission on Evidence-Based Policymaking, July 15, 2016). https://www.whitehouse.gov/sites/default/files/omb/mgmt-gpra/barriers_to_using_administrative_data_for_evidence_building.pdf

preferably through remote, secure connections such as the "flexiplace" systems used by federal employees who work with restricted data from home, but also (2) through expansion of on-site secure environments in the form of additional space and funding for Research Data Centers and similar centers at other statistical agencies.[11]

Synthetic data, one alternative to expanding remote and on-site secure connections to restricted data, are a far inferior option for enabling policy-relevant research and program evaluation. Synthetic data are constructed to mimic certain features and aggregate characteristics of real data without containing real individual-level information. Although this appears—on its surface—to enable research while protecting privacy, synthetic data suffer severe disadvantages relative to real microdata. Synthetic data may be incompatible with randomized evaluations and other rigorous program evaluations because researchers must be able to link individuals to their treatment status—i.e., whether a particular person received a program or not. Furthermore, synthetic data make it difficult or impossible to study subpopulations, such as low-income individuals, which may be of particular policy interest. Researchers would have to specify each subpopulation they intend to study and all necessary contents of the data in advance. This may be impossible, in part because researchers often revise their analyses to address observations they learn from the raw data.[12] Meanwhile, data administrators would have to create new synthetic datasets for each request to study a specified subpopulation, which would require significant infrastructure and personnel.

7. What data should be included in a potential U.S. government data clearinghouse? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

<u>Establish a data clearinghouse within the Census Bureau for currently hard-to-access data, particularly microdata on earnings and income.</u>

For reasons discussed in response to question 4, the data should be real microdata rather than aggregated, de-identified, synthetic, or perturbed data. The clearinghouse should prioritize data that do not already benefit from strong infrastructure for access. Specifically, a clearinghouse should be developed for federal income and earnings microdata and focus on enabling researchers to link these data to the extent legally possible.

Income and earnings data have less well-developed access infrastructure and face several legal barriers to use for program evaluation, meaning that the clearinghouse would not be redundant.[13] For example, individual states maintain their own data system for Unemployment Insurance (UI) records, with individual discretion and statutory protections on providing access to this data. The Department of Labor does not store the data in a central location. Although the Census Bureau has made a significant contribution to accessing state UI data through the Longitudinal Employer

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[11] Card et al., "Expanding access to administrative data," 2010b.
[12] Ibid.
[13] Ibid.

Household Dynamics Program (LEHD), the LEHD program requires that researchers be on-site at a designated Research Data Center.[14]

With infrastructure secure enough for the highly restricted data from UI and tax records established, the clearinghouse should then focus on facilitating linkage of these data with other, less restricted data. Federal data on income, namely tax records or Unemployment Insurance records, are in high demand because income can serve as a key outcome variable for many government programs or policies in education, job training, criminal justice, and place-based interventions.[15] For example, earnings—as measured by tax records—was a key outcome variable in the follow-up study of the Moving to Opportunity Experiment.

8. What factors or strategies should the Commission consider for how a clearinghouse(s) could be self-funded? What successful examples exist for self-financing related to similar purposes?

<u>**Avoid flat per-user fees for data access to encourage validation and double-checking of data analysis.**</u>

As is customary, a clearinghouse may charge fees for accessing data, such as a fee per project, a fee for sets of users, or an initial fee for the first user followed by much smaller fees for additional users. It should not charge the same flat fee per person for accessing the data because this severely discourages the double checking crucial to correcting human errors. Despite its clear data request process, CMS charges a fixed fee of $25,000 per person who accesses identifiable data through their Virtual Research Data Center.[16] This may create problems because researchers often need multiple people to work with the data to ensure accuracy—including people who effectively proofread to correct for human coding errors. With fixed per-person costs, researchers either pay a large inflexible sum of money for someone to double check the analysis or—facing tradeoffs given limited research funds—forego a set of "fresh eyes" to double check the analysis at risk of making mistakes. Therefore, by creating a high marginal cost to adding additional users, charging a fixed fee per data user effectively institutionalizes mistakes.

18. How can or should program evaluation be incorporated into program designs? What specific examples demonstrate where evaluation has been successfully incorporated in program designs?

<u>**Clearly articulate program objectives and build process evaluation into every program to lay the foundation for impact evaluation.**</u>

Process evaluation is always needed and constitutes a critical prerequisite for impact evaluation. It is not sensible to ask whether the program is succeeding or failing to deliver outcomes without first knowing whether the program itself is being delivered with fidelity. In some cases,

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[14] Ibid.

[15] Office of Management and Budget, *Barriers to Using Administrative Data*, 2016.

[16] Research Data Assistance Center. "Fee List for RIFs: Physical Research Data Requests." Centers for Medicare and Medicaid Services. https://www.resdac.org/sites/resdac.umn.edu/files/CMS%20Price%20List%20for%20Research%20Files_23.pdf Accessed October 31, 2016.

important questions about how a program can or should function may be sufficiently answered by process evaluations, needs assessments, or literature reviews. Rigorous impact evaluation, particularly randomized evaluation, should be pursued when the benefits in terms of knowledge generated would likely outweigh the costs of the evaluation, and when planning during program design can facilitate impact evaluation. [17]

Many components that aid process and impact evaluation should be developed during program design:

- Precisely articulated program objectives.
- A needs assessment clearly articulating the problem that the program will address.
- Standard outcome measures used in research literature about similar programs that allow potential impact evaluation results to be compared to those in other studies and used in cost-effectiveness analyses.
- A plan for data collection and flow from program practitioners to administrators. This includes planning in advance to collect identifying information, such as Medicaid ID numbers, to enable later matching of program-level records to administrative records for impact evaluation.

As an example of incorporating evaluation into program design, Benefits Data Trust (BDT) is working with J-PAL North America in an ongoing randomized evaluation of different outreach strategies to increase enrollment in the Supplemental Nutrition Assistance Program (SNAP) among eligible but unenrolled individuals in Pennsylvania. BDT had a clear grasp of the need its program addressed: despite awareness among eligible households that SNAP exists, many people could not imagine navigating the enrollment process alone. BDT had the clear program objective of increasing benefits enrollment, and change in program enrollment is a standard outcome that could be compared across different studies. BDT and researchers agreed that based on a review of the existing research, there was little rigorous evidence about what interventions can increase SNAP enrollment.

Although BDT was already providing enrollment assistance and sending outreach, BDT worked with researchers to design and test two distinct outreach activities—one high-touch intervention including a letter plus enrollment assistance and one low-touch intervention including a letter only. The researchers also worked with BDT to design a new letter for the evaluation based on marketing and psychology literature. Seeing quickly that this newly designed letter was more effective, BDT plans to incorporate this letter design in other states outside of Pennsylvania. Ultimately, the impact of the different outreach strategies will be measured using administrative data, which can be accessed according to a data use agreement with the Pennsylvania Department of Human Services.

19. To what extent should evaluations specifically with either experimental (sometimes referred to as "randomized control trials") or quasi-experimental designs be

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[17] Glennerster, Rachel, and Kudzai Takavarasha. *Running randomized evaluations: A practical guide*. Princeton University Press, 2013.

institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?

<u>**Institutionalize a process for developing specific research questions and determining the appropriate conditions for randomized control trials or other evaluation methods.**</u>

Federal agencies should institutionalize a process of developing high-priority research questions and determining the most appropriate evaluation methodology, following the precedent set by the Social and Behavioral Sciences Team (SBST). SBST launches demonstration projects—usually in the form of randomized evaluations—to rapidly evaluate low-cost applications of behavioral science to achieve desired outcomes, such as increasing workplace savings plan enrollment among military service members or increasing the rate at which indebted graduates apply for income-based loan repayment plans.[18]

When properly designed and implemented, randomized evaluations rigorously demonstrate the causal impact of a program by establishing the counterfactual—what outcomes would exist for program participants if they had not received the program. Random assignment ensures that, with a large enough sample, the group that receives the program and the group that does not are similar on average before the start of the program. Therefore the impact estimate from a randomized evaluation offers confidence that any differences in outcomes between the two groups are a result of the program. The ability to isolate program impact from self-selection or other confounding factors is why randomized evaluations are widely recognized as a highly credible method for estimating program impact. Where there is little internal experience implementing randomized evaluations, agencies should seek partnerships with external or academic researchers who are vested in similar questions.

Randomized evaluations can only occur when randomization is built into the program design. However, randomization should not be incorporated indiscriminately; rather, randomization should be incorporated into programs to facilitate randomized evaluations where appropriate on three grounds:

- The current evidence for answering the well-defined research question is non-existent, insufficient, or inconclusive.
- There is a clear unit of randomization—individual program participants, schools, clinics, etc.—for which there is a large enough sample size and a clear means of tracking outcomes for both the treatment group and the control group.
- Randomization is feasible and ethical. Although not an exhaustive list, the following conditions offer opportunities where randomization may be feasible and ethical:
    o Demand for a program exceeds capacity to provide the program. A lottery may be a fairer alternative than allocating slots on a first come, first served basis—particularly when a goal of the program is equity of access—and offers an alternative to imposing increasingly narrow eligibility criteria under funding constraints.

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[18] Social and Behavioral Sciences Team. *2016 Annual Report*. Executive Office of the President, National Science and Technology Council. September 15, 2016. https://sbst.gov/assets/files/2016%20SBST%20Annual%20Report.pdf

- o A program is being expanded by gradually offering it to individuals, schools, or districts until full coverage is reached. A lottery can be used to randomly assign the order in which individuals or units receive the program. The individuals or units that have not yet received the program serve as the control group until all units receive the program.
- o A new intervention—such as a financial incentive or care coordination services— will be added to an existing program. Program participants can be randomized to receive different versions of the program, e.g., with or without the added intervention, to isolate the impact of the new intervention.
- o Program eligibility criteria are being refined or reconsidered. People just above/below the eligibility cutoff can be randomly assigned to receive or not receive the program to determine whether it is effective for this marginal group. Meanwhile, those well within the program eligibility cutoff, automatically receive the program, and those well outside the cutoff do not qualify for the program.

As a specific example of institutionalizing a randomized evaluation, the South Carolina Department of Health and Human Services is partnering with J-PAL North America to incorporate a randomized evaluation in its expansion of a nurse home-visiting program for low-income mothers delivered by the nonprofit organization Nurse-Family Partnership (NFP). The specific, high-priority research question is whether a new, less expensive version of the NFP program that South Carolina is expanding will be as effective as the pre-existing version that has been rigorously evaluated before.

A randomized evaluation was found to be an appropriate method for answering this question given excess demand for the program. Although South Carolina is expanding this less expensive version of NFP to thousands of mothers through an innovative pay-for-success initiative, the program does not have sufficient resources to serve all of the women who are eligible. Applicants will be randomly assigned, on a rolling basis from 2016 to 2020, to either a treatment group that is offered access to the program, or to a control group that is not.[19] We will assess the effect of NFP on a range of short- and long-run maternal and child outcomes using administrative data that will be available for all members of both treatment and control groups. This will yield useful evidence for South Carolina and for policy makers nationally, who are interested in the broader health and financial consequences of expanding Medicaid to include similar services.

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[19] The Abdul Latif Jameel Poverty Action Lab. "The Impact of a Nurse Home Visiting Program on Maternal and Child Health Outcomes in the United States." Accessed October 24, 2016. https://www.povertyactionlab.org/evaluation/impact-nurse-home-visiting-program-maternal-and-child-health-outcomes-united-states

Appendix to the Original Written Statement

During J-PAL North America Executive Director Quentin Palfrey's testimony at the public CEP hearing in Chicago on January 5th, Commissioner Abraham asked a question about J-PAL's views on user fees. To clarify our initial statement, we do not suggest that data repositories avoid charging fees in general. We suggest only that data repositories avoid flat per-user fees for data access, since these can discourage researchers from having multiple team members access the data and reduce opportunities to prevent data analysis errors. As is customary, we recommend that a clearinghouse charge reasonable fees for accessing data, such as a fee per project, a fee for sets of users, or an initial fee for the first user followed by much smaller fees for additional users.

As one example, J-PAL has ongoing research partnerships with the state of South Carolina which have been benefited from South Carolina's integrated data system and clear data access procedures. The integrated data system South Carolina has built over time, which is housed at the Revenue and Fiscal Affairs Office makes it easier for government and independent evaluators to assess the impact of government programs. This has made South Carolina a promising location for researchers interesting in answering crucial policy-relevant questions related to maternal and child health, the opioid crisis, health insurance rating systems, and much more. As just one example, South Carolina's Department of Health and Human Services (SCDHHS) has partnered with J-PAL affiliates to use this infrastructure to evaluate how expanding the Nurse-Family Partnership through a pay-for-success contract affects the health and long-term economic outcomes of mothers and children enrolled in the program.

Commissioner Haskins also asked us to provide examples of specific datasets for which the Commission should prioritize improving access. Based on conversations with our professional staff and affiliates, we suggest prioritizing access to administrative data on earnings and income that are currently hard to access, such as unemployment insurance wage records and Social Security Administration data. There are a number of administrative datasets for federal programs that are maintained at the state level, such as records for UI, SNAP, and TANF, and researchers must gain access to these data on a state-by-state basis. There is a great deal of arbitrary variation between states in the application process, the time it takes for applications to be considered, and the likelihood that an application is approved. These state-level access burdens can be very discouraging for researchers interested in important policy questions related to these programs. We suggest that the Commission look for ways to ease access to these state-level datasets by harmonizing data collection and application processes. For example, the Commission could recommend a carrot/stick strategy to encourage states to share their data with CARRA for research purposes, allowing researchers with CARRA-approved projects to access these data more systematically. The Commission could use a similar strategy to encourage the use of common metrics across states so data can be more readily linked across states.

In addition, the Commissioners expressed interest in examples of institutions or structures that have successfully created opportunities for policy-relevant research and partnerships between academics and government. J-PAL has worked with a number of governments internationally and in the United States to create mutually beneficial partnerships between these public entities and academic researchers. These partnerships have allowed public officials and academics to

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work together to identify important research questions, conduct high-quality evaluations, and implement the learnings from these evaluations into policy action.

We have found that specific structures can be put in place that facilitate governments sharing the priority questions they would like research to address, and then developing specific prospective research projects in close collaboration with external researchers. The intent is to have prospective evaluations emerge not in isolation either from government or from external researchers alone, but rather as part of an on-going collaboration. Two examples include sector-specific commissions and innovation initiatives.

Commissions that have a mandate to test policy innovations in a particular policy area are one example of such a structure that has been implemented internationally. For example, MineduLAB is an innovation lab for education policy housed within the government of Peru. The MineduLAB team of four monitoring and evaluation professionals is nested inside the Ministry of Education (Minedu) Secretariat of Strategic Planning (SPE). The lab pilots and evaluates the effectiveness of innovations with the ultimate goal of allowing the Ministry to use evidence to improve children's learning throughout the country.

Critical to this success is the lab's close ties with academia. The collaborative MineduLAB process combines the researchers' expertise with the political and operational experience of policymakers, ensuring that the innovations tested before scaling-up are informed by existing rigorous evidence and cutting-edge theories on education and behavioral economics.

Innovation Initiatives can create a mechanism for developing collaborative research partnerships that focus on policy maker's priority policy issues. International examples include the Government of Tamil Nadu in India, which has set up the Tamil Nadu Innovation Initiative, which works with researchers to call for proposals on an ongoing basis, select the most promising ideas based on local needs and existing evidence, design pilot programs, and rigorously evaluate them to understand their impact. In France in 2008, the government created the Experimental Fund for Youth, which set aside 320 million Euros to learn which programs are effective in helping youth improve educational outcomes and social and professional integration. The fund sets aside funding for rigorous evaluations, with a focus on randomized evaluations. In the US, competitions such as the Government Performance Lab's technical assistance competition and the J-PAL State and Local Innovation Initiative provide platforms for state and local governments to bring their priority research questions to external research teams.

To: Commission on Evidence-Based Policymaking (CEP)
From: Joy Bonaguro, Chief Data Officer, City and County of San Francisco
Date: January 23, 2017
Re: Issues relevant to CEP's charge established in Public Law 114-140

Evidence-based policies help government agencies provide more efficient and effective services for Americans. Individuals tend to support data use that improves their lives, whether it be as consumers or citizens. At the same time, individuals expect government use of data to protect their individual privacy and confidentiality. These two concepts need not stand in opposition to one another - constructive and responsible data use can both improve lives and uphold privacy.

Against this context, social service delivery is in the midst of a migration from program to people centric care. Our most vulnerable individuals touch multiple systems - education, human services, and housing - which have historically operated in silos. The transition to coordinated, person-centered care will better meet the needs of our clients by tailoring care to meet the needs of each individual, rather than using a one-size-fits-all approach.

A coordinated care approach is most effective when jurisdictions and programs can share data about the individuals they jointly serve to avoid duplication and offer the right mix of services. As a result, evidence based policy is not simply a function of retrospective studies, but continuous improvement, which the commission here today was charged to study. Continuous improvement is predicated on real time data linkage to facilitate care coordination. While the bulk of the Commission's charge is focused on data linkage for study, we also encourage the commission to recognize the importance of care coordination to ensure quality care in real time.

The remainder of my comments focus on the Commission's duties per Public Law 114-140.

Section I. How best to incorporate outcomes measurement, randomized controlled trials, and rigorous impact analysis

More rigorous evaluation and a focus on outcomes is essential to continuously improve government policy and programs. The recommendations below help promote this locally.

1. **Establish and harmonize outcomes-based measures for major areas of program funding.** Too many agencies require a variety of reports often focused on activities (e.g. how many served) and not outcomes (e.g. how much better off). Those reports vary across funding streams and over time, often resulting in costly changes to administrative data systems. The result is time and effort spent on reporting compliance versus assessing what works. A word of caution for any outcomes framework: not achieving an outcome is not necessarily grounds for marking a program as a failure. Some programs may be preventing even worse outcomes. Instead, outcomes metrics should be used to continuously improve and modify programs; and
2. **Selectively fund RCTs and lottery based services.** Some portion of federal program dollars could be predicated on lotteries leading to randomized controlled trials. While not appropriate in all cases, a lottery requirement as a function of funding would help local programs overcome resistance to experimenting more with lotteries. Lotteries are not appropriate for services where a clear and consistent set of criteria is known for prioritizing program access and program resources are sufficient.

Section II. Legal and administrative barriers.

Perhaps the most significant barrier to data linking is navigating a thicket of sector-specific, jurisdiction-specific and sometimes conflicting statutes and standards regarding data privacy and security. The recommendations below provide several avenues to remove these barriers and spur evidence-based policy through integrated data, while maintaining privacy.

A. Statutory and regulatory changes could broaden opportunities for data sharing. The following recommendations identify opportunities to modify privacy statutes and regulations.

1. **Streamline and harmonize complicated and often contradictory federal data and privacy regulations.** Changes should allow for more flexibility in data sharing across health, human services, housing, and education agencies, while continuing to ensure strong, consistent privacy protections. Regulations and standards can be streamlined and harmonized around key principles (e.g. role-based access, limited use) and consistent definitions (e.g. of personally identifiable information);
2. **Implement exemptions to existing data and privacy regulations to allow for data sharing between local government services and agencies and with designated partners for limited purposes.** Purposes covered by exemptions should include program evaluation, continuous improvement, policy-relevant research, cost-benefit analysis by qualified researchers and institutions, and care and service coordination; and
3. **Consider the creation of an omnibus federal information privacy law.** This avenue is supported by advocates across industry, academia and government as a means of promoting efficiency, accuracy and integrity of information as well as encouraging a clearer understanding of privacy requirements by individuals, industry and government.

B. Administrative actions could ease the burden of legal interpretation. Often, the most significant barrier to confidential data sharing is not the interpretation of any single statute, but navigating a series of statutes. Each jurisdiction navigates this thicket afresh, which concentrates risk on individuals and localities interpreting the law and serves as a disincentive to integrated data. More regulatory guidance per the following recommendations would help local governments consistently and responsibly interpret confidentiality laws.

1. **Provide cross-agency guidance for data sharing across multiple bodies of law (e.g. FERPA, HIPAA, HMIS etc).** While policy specific guidance is helpful, integrated guidance across policies is more useful for the local practitioner. For example, the Administration for Children & Families released a Toolkit[1] for sharing data across six programs;
2. **Provide model data use agreements (DUAs) that take into account the cross-agency guidance.** Model DUA terms, which build on the prior recommendation, could accelerate adoption among agencies. A 2013 GAO report[2] notes that model or example DUAs are especially needed in health and human services;
3. **Partner with states to provide guidance as to the interaction between state and federal privacy requirements.** State specific statutes can further complicate the legal path towards integrated data. Developing model frameworks in partnership with states can reduce the local burden of interpretation;

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[1] Available at
https://www.acf.hhs.gov/sites/default/files/assets/acf_confidentiality_toolkit_final_08_12_2014.pdf.
[2] "Human Services: Sustained and Coordinated Efforts Could Facilitate Data Sharing While Protecting Privacy" available at http://www.gao.gov/assets/660/652058.pdf.

4. **Convene major states and select localities to identify opportunities to harmonize requirements and guidance.** States and localities provide a "boots on the ground" perspective on existing and emerging data linking challenges; and
5. **Create and maintain a single website for cross-agency guidance.** Finding timely guidance requires hunting across multiple sites. A cross agency webiste could serve as the umbrella to shepherd the recommendations above.

Section III. Clearinghouse and data-sharing infrastructure.

To promote evidence-based government, further investments in data and digital infrastructure, could include the following:

1. **Pilot policy "labs" or "hubs" that focus on using data integration to answer a specific problem or issue.** Pilots could focus on a key health care outcome or topic such as recidivism. Pilots would allow experimentation at a small level and achieve "quick wins" ahead of introducing any larger clearinghouse. Pilots could evolve in an agile manner through continued integration of more data and eventually interoperable hubs;
2. **A central service for matching personally identifiable data and then de-identifying for the purpose of research.** Matching and linking data across systems can be a challenge and burden for local entities due to the expertise required and may disincent research partnerships. A central service could lend consistent technical expertise to the task of data matching; and
3. **Ensure government data is broadly available as open data whenever possible.** The burden of data access is reduced when government data is proactively made available. A combination of open and closed data is needed for evidence-based policy.

Section IV. Limitations on data access and use

Limitations on data access and use should be developed from a risk management perspective, with the limits commensurate to the privacy or security risk posed by the data. Rather than focusing on whether others can *have* data, a risk management approach allows agencies to designate *who* should have access and *for what purposes* based on a data classification scheme. Specific methods for managing risk in a data sharing context might include:

1. Establishing review committees to assess the risk/benefit of the proposed research;
2. Ensuring the data-sharing infrastructure supports role-based access, and developing model protocols and procedures to support role-based access; and
3. Developing model data use agreements and/or Terms of Use for data-sharing that restrict researchers and other individuals with access from using confidential data to re-identify individuals or for purposes not specified in the scope of work.

Section V. Incentives to facilitate interagency sharing of information

Eliminating legal and administrative barriers and providing information resources and guidance, as discussed in Section II, are major steps toward achieving greater interagency sharing of information. Additional incentives to promote interagency sharing of information could include:

1. Allocation requirements for analytics and evaluation in federally funded programs;
2. Allocation requirements for data and infrastructure in federally funded programs to ensure the consistent collection and availability of quality data;
3. Grant and funding criteria that reward interagency proposals; and
4. Waivers that would allow states and localities to pursue a coordinated care approach and build the case for needed regulatory and statutory changes.

Section VI. How data and research can inform policy-makers and programs

A gap often exists between research and practice. This gap exists in at least two forms: 1) a gap between what researchers find and its application to practice and 2) a gap between what practitioners need and what researchers find compelling to study given a historical focus on original research and a bias towards positive results.

To close the first gap:

1. **Researchers should provide practical information and concrete steps or recommendations to guide decision-making, not just journal articles.** This could include research with short-form extracts, sections on practical policy recommendations, data visualizations, geographic breakdowns, or breakdowns by subgroups relevant to programs. Frameworks for measuring impacts and evaluating programs should take into account the resources and ability of agencies, including the recognition that academic peer review and practical implementation may have different standards (that is don't let perfect be the enemy of good); and
2. **Establish centers of practice responsible for translating and consolidating research results.** While journals provide the service of publishing results, few entities combine the results into practitioner handbooks. It is the rare local agency that can stay on top of the research across disparate fields to understand what programs or actions have the strongest evidence base in their field.

To close the second gap of aligning incentives between researchers and practitioners, consider the following recommendations:

1. **Incent researchers to partner with programs and practitioners.** Funders could require or favor research and grant submissions that included a program or policy partner and an applied research question; and
2. **Seed research centers at local universities with joint academic and practitioner governance.** For example, the John W. Gardner Center at Stanford develops its research agenda in partnership with the San Francisco Unified School District and a pool of funds helps incent applied research in collaboration with the school district.

Commission on Evidence-Based Policymaking

Doing What Works in Community-Based Organizations

Susan N. Dreyfus, president and CEO

Alliance for Strong Families and Communities

January 22, 2017

Thank you for the opportunity to contribute to the important work this Commission on Evidence-Based Policymaking has undertaken. It is an honor to speak with you today on behalf of the Alliance for Strong Families and Communities, where I am the president and CEO. Prior to joining the Alliance, I was secretary for the Washington State Department of Social and Health Services, where I had responsibility for Medicaid, child welfare, behavioral health, juvenile justice, economic assistance, and other human services. I also served as Wisconsin's first administrator of the Division of Children and Family Services. Most recently, from 2014-2016, I served as a commissioner for the federal Commission to Eliminate Child Abuse and Neglect Fatalities.

The Alliance's network of human service organizations is grateful that you are facilitating this conversation, as we believe this is the right time for significant steps forward in developing a modern human services sector that leads to stronger, healthier families and communities. The Alliance strategic action network is uniquely positioned to share its perspective on evidence-based policymaking because community-based organizations provide the majority of services in the social sector and generate the majority of outcomes data used to inform best practice development.

I will begin with some background information about the Alliance for Strong Families and Communities. The Alliance is a national strategic action network of nearly 450 nonprofit, community-based organizations dedicated to achieving a vision of a healthy and equitable society for all children, adults, and families. Many organizations in this network have more than 100 years of human service leadership experience.

It was formed in 1998 by the merger between Family Service America and the National Association of Homes and Services for Children, and expanded during a 2014 merger with the United Neighborhood Centers of America. The result is the nation's largest network of human-serving organizations working with their neighbors on the front lines to enhance the lives of Americans. The Alliance works for transformational change by representing and supporting its network as members translate knowledge into best practices that improve their communities. We help members successfully meet the challenges of today and prepare for those to come.

The sector stands ready to fully engage in policy conversations that could shape human services and impact equity and opportunity in our nation for years to come. We bring

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extensive knowledge and have a responsibility to inform changes being considered at the local, state, and federal levels with the lived experiences of the people we serve. For example, when elected leaders talk about jobs as the single solution to a vibrant economy, our sector's voice is critical to broadening the lens to encompass the social determinants of health and the latest advances in neurosciences to that conversation. As important is our effort to advance equity across our country to ensure all of our citizens have equal access and opportunity to realize their full potential and share in the prosperity of our great nation.

There are three main ideas I would like to discuss with you today:

1. Context matters. Organizations must align and integrate with others in their ecosystems to promote efficiencies and better outcomes.
2. Developing a deeper appreciation for research evidence among human service staff can produce better outcomes for children and families.
3. Evidence-based and informed practices need to be implemented within a research and development infrastructure that is equipped to support fidelity, quality service delivery, positive outcomes, and innovation.

Context Matters

Organizations have the capacity to be feeders of knowledge, but they face contextual factors that are outside of their control. The context in which people, programs, and systems operate must be taken into consideration when discussing evidence-based programs and policymaking. If organizations embrace evidence-based outcomes without aligning with other organizations and sectors in their ecosystem, the intended outcomes are less likely to be achieved. Take the case of a community-based organization that enrolls a family in an evidence-based program to meet the family's needs. The same family has children who attend a school with policies and procedures that run counter to the latest knowledge in brain development. As human-serving programs apply evidence, they often come across external barriers. The context in which social sector organizations operate needs to support their use of evidence.

It is important to think about the four levers of systems change. We always focus on the first one, practice, but we rarely get to the other three: policy, regulatory, and fiscal change. The Alliance, through our strategic action network, is aiming to be more intentional about the use of research and its implications for our work beyond merely changing practice and interventions. Because if we change practice, it changes for one person, one worker, and one agency, at one given time. But until the evidence gets hardwired into policy and regulatory change, along with fiscal alignment, we will have programs operating in unsupportive environments. True systems change requires us to pull all four levers, not just the quick and easy lever of doing our practice differently. If the other three levers are not also addressed, evidence-based programs are here today, gone tomorrow, and we will not attain sustainable and meaningful systems change that can truly improve the lives of children, families, and communities.

When I was secretary in the state of Washington, I asked researcher Dr. Mark Courtney to look at all of the child neglect cases in our child protection agencies. He found that two of the biggest challenges these families faced were related to housing and economics. The challenges were unrelated to what the child welfare agency was doing or not doing to support those families. It was a much broader picture than whether the programs that we had control over were working. For this reason, it is critical that systems are integrated so they are familiar with the programs and services offered by one another and can help put needed services in place in a timely manner for families.

During my experience on the Commission to Eliminate Child Abuse and Neglect Fatalities, I was reminded of a principle in social psychology called the fundamental attribution error, thanks to testimony from Dr. Gary Melton at the Kempe Center in Colorado. This principle is the tendency to attribute behaviors to a person's internal qualities while underestimating situational influence. Both the general public and human service professionals tend to overemphasize individual factors and underemphasize situational ones. Organizations focus on what they are doing to help one person, but they have a limited ability to influence the context in which that person lives every day. We know from the research there are social determinants of health that influence the well-being of children, families, and communities. For example, if a program seeks to connect a family to medical care or substance abuse treatment, it may need to examine the underlying issues of education and employment in order to support that family's success. *The recommendation is that context matters, and health and human services leaders must be encouraged to align and integrate with others who operate in their ecosystems in order to achieve efficiency and better outcomes.*

Developing a deeper appreciation for research evidence among staff can produce better outcomes for families.

Evidence from child welfare research can and should be used when making decisions, whether those decisions are being made by policymakers, agency directors, or social workers who directly interact with families. However, there is a lack of research about how research evidence is generated and used and whether its use produces better outcomes for children and families. To help answer these questions, 26 private child welfare agencies, some of which are members of the Alliance network, participated in a project on research evidence use funded by the W.T. Grant Foundation in 2013-2014. The project was led by Fred Wulczyn, Ph.D., senior research fellow at Chapin Hall Center for Children at the University of Chicago. This project sought to accomplish three main objectives:

1. Establish the extent to which individuals who work for child welfare agencies use research evidence when making decisions about how to work with children and families.
2. Determine whether staff use of research evidence is associated with characteristics of agencies and improvements in the permanency rate at the agency level.
3. Examine the connection between evidence use and outcomes.

The findings of this research indicate that developing a deeper appreciation for research and evidence use among staff can produce better outcomes for families. Findings include:

- Child welfare staff with a positive attitude toward evidence, more child welfare experience, and the know-how to find research evidence, were more likely to acquire research evidence as part of decision making.
- Agencies with more staff who use research evidence move children to permanency significantly more quickly than agencies with less staff who use research evidence.
- Leadership and organizational investment are linked to more evidence use by staff.
- Agencies that generate their own research evidence have the greatest effect on improved outcomes for children and families.

The policy implications for these findings are related to talent and workforce development, especially staff attitude, skills, and use of evidence. The results indicate that an investment in staff development—particularly around fostering positive attitudes about evidence and strengthening the ability to find and use evidence—would bolster the chances of success for families engaged in those programs. Supervisors can play a key role in supporting the use of evidence by front-line workers. *The recommendation I submit on behalf of the Alliance network is to invest in workforce development to lift skills, foster positive attitudes, and improve organizational culture to elevate the use of research evidence and promote positive outcomes for families.*

Evidence-based and informed practices need to be implemented within a research and development infrastructure that is equipped to support fidelity, quality service delivery, positive outcomes, and innovation.
Programs that implement evidence-based practices are less likely to achieve intended outcomes if the practice is not implemented with fidelity or if the context in which the program operates is not supportive. In other words, having an evidence-based practice is not a recipe for success.

Programs should be involved in continuous quality improvement evaluations, along with determining which practices can be proven to be effective at any given time. The American Public Human Services Association encourages public human service leaders to "invest in infrastructure capacities to scale up promising approaches and evidence-informed/evidence-based practices." [1] We should promote evidence-informed practices that improve outcomes while also ensuring that we don't get in the way of practical, low-cost supports that can make a big difference to a family's health and well-being.

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[1] APHSA's 2016 Annual Report.

There is wisdom from the medical community that can be beneficial for the human services sector, especially child welfare, to consider. For example, medical professionals attend grand rounds, formal conferences in which experts present and discuss clinical issues intended to be educational for all participants. A child welfare version of grand rounds, where a specific case is presented and barriers identified, could be useful to social workers and leaders in the field. The medical community also has standards of care for medical conditions. Child welfare might consider developing standards of care for different types of abuse and neglect so that professionals know what steps to take and how to connect children and families to resources and other systems.

Organizations need to be innovation-driven. The Center on the Developing Child at Harvard University promotes an approach to innovation that takes risks, shares results early, and learns quickly from ideas that do not work[2]. When an organization rewards innovation, people can work together to test ideas and engage in active learning. These ideas should be grounded in the latest science available and informed by on-the-ground experience. The Center recommends working across sectors to test promising ideas, learn from failure, and promote fast-cycle sharing. It is critical that policy, funding, and professional environments support this type of experimentation and entrepreneurial investment in new ideas. *The recommendation is to invest in a research and development infrastructure that is equipped to support fidelity, quality service delivery, positive outcomes, and innovation.*

Conclusion
It is important to our sector that any changes being proposed to promote evidence-based policymaking will result in gains, not losses, for children, families, and communities. As we consider directing resources toward programs that produce outcomes, elevating our network's on-the-ground experience is essential. Legislative solutions must align the practice, policy, regulatory, and financial aspects of how we do our work in order to yield the best outcomes that all families deserve. Making sure that programs are operating in contexts that support the use of evidence, building the infrastructure and human capital for research evidence, and focusing on research and development investments are critical considerations for any policy about evidence-based practices.

It is a pleasure to share this testimony with you, and I look forward to hearing more about the Commission's findings in the coming months. I welcome any questions about my remarks.

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[2] http://developingchild.harvard.edu/innovation-application/key-concepts/science-based-innovation/
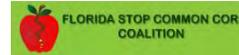
Comments to the Commission on Evidence-Based Policymaking Opposing Lifting the Prohibition on a Student Unit Record System

Karen R. Effrem MD

President of Education Liberty Watch & Executive Director of the Florida Stop Common Core Coalition

The thousands of parent, grandparents, teachers, and citizen supporters across the nation of Education Liberty Watch and the Florida Stop Common Core Coalition, as well as many allied groups[1] representing hundreds of thousands more that have repeatedly raised student data privacy concerns, are firmly against the lifting of the prohibition on a federal student unit-record for many reasons. Here are a just a few:

- The government has no constitutional or moral right to collect data and offer it, without consent, to governmental and non-governmental organizations for research without consent. It is a blatant violation of the Fourth Amendment to the US Constitution and of the numerous Supreme Court precedents affirming parents' inherent right to direct the education and upbringing of their children as outlined in this letter from Liberty Counsel.[2]

- The Obama administration has already gutted the outdated and fairly weak data protections of Family Educational Rights and Privacy Act (FERPA) for K-12, allowing multiple federal agencies and outside researchers to have access to sensitive student and family data without parental consent.[3] Lifting the student unit-record prohibition will create a womb-to-tomb database of information that citizens will not be able to monitor themselves for any purpose, including to correct errors. Access to this data by so many entities will likely have life-altering consequences for the individual regarding college, jobs, military service, insurance, and other issues. Privacy expert Barmak Nassirian[4] said of this idea:

> "Tracking autonomous free individuals through most of their lives in the name of better information for the benefit of others may be justifiable, but its extremism should at the very least be acknowledged and addressed."

- There is abundant evidence from multiple federal[5] and state bills, from the National Assessment of Educational Progress (NAEP) effort to track mindsets and school climate data, from the National Commission on Social Emotional Learning,[6] from the new Head Start Performance Standards,[7] from policy efforts of foundations[8] and business groups,[9] etc. that there is a concerted effort to psychologically profile American students and workers starting at a very young age. This effort makes the plan to lift the prohibition on the student unit-record even more dangerous, very likely leading to the egregious violation of the most fundamental of American rights, the private right of conscience.

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[1] http://edlibertywatch.org/wp-content/uploads/2014/11/Congressional-ESEA-letter-10-24.pdf

[2] Liberty Counsel Letter Regarding Assessing Mindsets in the NAEP - http://edlibertywatch.org/wp-content/uploads/2014/11/Final-Ltr-NAEP-legal-and-privacy-concerns-06272016.pdf

[3] http://edlibertywatch.org/2014/01/formal-response-to-the-chief-state-school-officers-letter-on-student-data-privacy/

[4] http://www.studentprivacymatters.org/barmak-nassirian-is-the-student-right-to-know-bill-worth-the-risk-to-privacy/

[5] http://www.flstopcccoalition.org/files/7C7D2880-68E4-4C61-AF31-FF29E8FA9789--B4BCFE9D-8881-4C5A-B267-D9863CA280DB/setra-handout-final.pdf

[6] https://www.conservativereview.com/commentary/2016/11/think-common-core-is-bad-new-standards-crank-the-creep-factor-up-to-eleven

[7] http://truthinamericaneducation.com/federalized-education/enter-baby-common-core-new-head-start-performance-standards/

[8] http://www.casel.org/from-casel/

[9] http://www.usnews.com/news/articles/2016-05-13/op-ed-educational-data-mining-can-enhance-science-education

- We believe that student privacy and parental consent should always be considered pre-eminent compared to the research desires of the government or private sector, especially in the realm of psychological profiling.

- Congress and the rest of the federal government already ignore research that does not fit the paradigm of expanding the federal role in education and further usurping the parental role.   Disastrous federal welfare policies that subsidize unwed parenthood have resulted in terrible academic performance, more out-of-wedlock births, and increased rates of crime, drug abuse, suicide, etc. Multiple studies have shown that very few, if any, of the government programs designed to address these government-created problems – for example, school-improvement[10] early childhood,[11] or home visiting programs[12] -- have had significant sustainable benefit or reached their stated national goals.[13] According to data presented to the US House Education and Workforce Committee by the Cato Institute several years ago, federal involvement in education has yielded either stagnant or declining academic performance:

And often federal education programs have made things worse. But of course, the federal government simply disregards the research it disagrees with – and insists, through advocacy of a unit-record system, that it should be given even more data for even more research, which will be ignored if it reaches the "wrong" conclusions. The research of the esteemed co-chairman, Dr. Haskins, is an important example of this situation as he has authored several early-childhood studies, including analysis of Head Start[14] and Abecedarian,[15] and has seen first-hand the failure and or harm of these programs on poor children. Regardless of his views on lifting the prohibition on the creation of a student unit-record system, it is somewhat ironic that he is serving on this commission that is hearing so many pleas to expand access to more privacy-destroying data for more government programs.)

- The US Department of Education (USED) has terrible data-security:
  The US House Oversight and Government Accountability Committee chaired by Rep. Jason Chaffetz held two hearings dealing with the deplorable state of student data-security in USED. Here are some of its findings (emphasis added):

  At the **November 17, 2015** hearing,[16] the Committee learned that the US Department of Education:

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[10] https://edexcellence.net/commentary/education-gadfly-daily/flypaper/2012/the-disappointing-but-completely-predictable-results-from-SIG.html

[11] http://edlibertywatch.org/wp-content/uploads/2014/11/Updated-Preschool-Compilation-4-16.pdf

[12] http://thefederalist.com/2016/07/13/sending-government-agents-into-peoples-homes-wont-fix-preschools-failures/

[13] http://thefederalist.com/2016/12/07/7-things-betsy-devos-needs-immediately-becomes-education-secretary/

[14] Dr. Haskins was on the Head Start Research Committee involved in Head Start Impact Study that showed very early fade out and harm to math skills of three year olds - https://www.acf.hhs.gov/sites/default/files/opre/hs_impact_study_final.pdf

[15] Dr. Haskins's study found that Abecedarian children were "more aggressive than children in the control group" in elementary school. http://www.jstor.org/stable/1129759?seq=1#page_scan_tab_contents

[16] https://oversight.house.gov/hearing/u-s-department-of-education-information-security-review/

o *Holds 139 million unique Social Security numbers*;

o *Continues to be "vulnerable to security threats"* according to the IG, and has repeat findings in annually required FISMA audits;

o *Failed to detect a penetration test of its systems conducted by the IG during its FY2015* [Federal Information Modernization Security Act]*;

o *Received an "F" on the Committee's FITARA scorecard*. [Federal Information Technology Acquisition Reform Act]

At the **February 2, 2016** hearing,[17] the Committee learned:

o *The Department of Education's (ED) Chief Information Officer (CIO) Danny Harris received substantial bonuses despite poor performance in securing IT systems at the Agency and significant ethical lapses in judgment.*

o Despite the IG's evidence to the contrary, Acting Secretary King asserted that Mr. Harris did not violate any law, regulation, policy, or standard of ethical conduct.

o Mr. Harris testified his home theatre installation and car detailing activities were "hobbies" and not businesses. The IG testified that these activities qualified as businesses.

o *It was in excess of two years before ED responded to the IG's initial report of findings and referral for administrative action.*

o The Department of Justice (DOJ) declined to prosecute the IG's criminal referral and deferred to ED leadership for action. Acting Sec. King deemed verbal counseling and a three page ethics guidance letter as appropriate consequences.

Does anyone really want psychosocial research and assessment results housed in the US Department of Education under these circumstances?

Perhaps most disturbing is the appearance of arrogant dismissal of citizens' privacy concerns by in this discussion during this Commission's meeting that occurred on December 13, 2016.[18]

A question asked by Commission member Bruce Meyer[19] to witness Ron Jarmin of the Census Bureau starting at 1:26:47:

"Let me try and ask what I think is a very difficult question, and I don't expect you to be able to answer it, but maybe we can start a conversation that could be useful to us. So, I see Census as having made a lot of steps to move in the kinds of directions that are suggested or anticipated by the Commission bill, in that you are working to bring data from other agencies or you have, into the RDCs — you've broadened their mission and you are bringing together data from many agencies and **allowing researchers in and outside of government to access the data that you've brought together. What are the ways that you could expand those efforts? Um, and I'm not suggesting that we talk about a single statistical agency across government, but how could there be more of a coordination or maybe a virtual one statistical agency** where *Census is playing a coordinating role*, or what kinds of movements in that direction should we think about? What kinds of things have you thought about? What are the barriers to moving towards more coordination between the statistical agencies?"

The response at 1:28:54 from the Mr. Jarmin:

"…One of the biggest constraints that everybody involved in this sort of endeavor faces is the different rules that are attached to data that are sourced from different agencies or different levels of, you know, whether

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[17] https://oversight.house.gov/hearing/u-s-department-of-education-investigation-of-the-cio/

[18] https://www.youtube.com/watch?v=MXasJLAWgtc as transcribed at https://whatiscommoncore.wordpress.com/2016/12/13/feds-comment-on-childrens-privacy-ripping-the-band-aid-would-probably-not-fly/

[19] https://www.cep.gov/commissioners/meyer.html

> it's federal or state… that if there was broad agreement in, that, you know, if there was one law that prosc–
> [sic – word not fully pronounced] had the confidentiality protections for broad classes of data, as opposed
> to, you know, here's **data with PII [personally identifiable information] on it that's collected from SSA,
> here's data with PII on it that's collected from the IRS; here's data with PII on it that's collected <u>from a
> state</u>;** versus from a statistical agency– if data with PII on it was treated the same, you know I think that
> would permit, you know, **organizations that were collecting PII-laden data for different purposes to make
> those data available more easily**. Now, that's probably a pretty heavy lift… to show people through
> examples like that, that there is not an explosion and the world keeps working, maybe even works better,
> um, **to do this in sort of baby steps showing by example, as opposed to trying to rip the Band-
> Aid off. I think ripping the band-aid would probably not fly."**

This attitude that all PII, no matter from where it comes, belongs to the federal agencies and corporate researchers, is extremely distasteful to American citizens,[20] especially for parents when it comes to womb-to-tomb education and health data about their children. This is especially true when one considers that this is advocated by the Census Bureau, whose only constitutional charge is to:

> *Representatives and direct Taxes shall be apportioned among the several States which may be included within this
> Union, according to their respective Numbers*…*The actual Enumeration* shall be made within three Years after the
> first Meeting of the Congress of the United States, and within every subsequent Term of ten Years, in such Manner
> as they shall by Law direct.[21]

We therefore strongly recommend the following for CEP and for Congress:
1. **Retain the prohibition of a student unit-record system.**
2. **Strongly consider a moratorium on further federal research until programs already shown to be ineffective and harmful are transformed or eliminated and until effective measures are actually implemented.**
3. **Prohibit social emotional data-gathering and the use of data for predictive testing in the FERPA and Strengthening Education Through Research Act (SETRA) reauthorizations.**
4. **Put in strict data-transparency language and update the data-security language per the recommendations of technical experts like Dr. Joel Reidenberg[22] or Barmak Nassirian[23] in any FERPA reauthorization.**
5. **Require third-party software and testing vendors to notify parents of what data is collected on students and how it is used.**
6. **Find a way for students whose identity and privacy is compromised to be compensated, in addition to penalizing researchers or private vendors that breach data-security.**
7. **Close the curriculum and assessment loophole for invasive surveys in the Protection of Pupil Rights Amendment.[24]**
8. **Demand that the US Department of Education immediately repair the federal data-security failures found in the Inspector General's recent report and uncovered by the House Oversight Committee.**

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[20] http://thepulse2016.com/karen-r-effrem/2016/06/22/memo-to-big-data-parents-are-not-fearful-they-are-furious-about-data-mining/
[21] U.S. Constitution, Article 1 Section 3 Clause 1
[22] http://edworkforce.house.gov/uploadedfiles/reidenberg_testimony_final.pdf
[23] http://www.studentprivacymatters.org/barmak-nassirian-is-the-student-right-to-know-bill-worth-the-risk-to-privacy/
[24] http://edlibertywatch.org/wp-content/uploads/2015/02/Common-Core-FERPA-and-ESRA-Update-for-Senate.pdf

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TESTIMONY

Before the
Commission on Evidence-Based Policy Making—Public Hearing
San Francisco, CA
February 9, 2017

Hello, my name is Maryann Feldman. I am a professor in the department of
Public Policy at the University of North Carolina, Chapel Hill.

I am speaking as a member of the community of scholars that seeks to
advance the scientific basis of science and innovation policy. My testimony
outlines some of the needs of that community related to 1) open science, (2)
ready access to administrative data, (3) rationalization of data access and use
polices, (4) the important for researchers to understand context or for them to
collaborate with practitioners, which also enhances trust, and finally (5)
offering suggestions for a governance structure for data access and use while
maintaining privacy.

My own research uses a variety of administrative data from public, private
and non-profit organizations at the local, state and national level. I am a
recipient of funding under the National Science Foundation (NSF) Science of
Science and Innovation Policy (SciSIP) program, which is part of the Division
of Social, Behavioral and Economic Sciences. The program funds research to
develop models, analytical tools, data and metrics that can be applied in the

science policy decision making process and affect the use and allocation of scarce scientific resources.

I am currently on detail to the NSF. The views expressed here do not necessarily represent the views of NSF or the U.S. Government. In my comments, I represent my own views as a researcher and member of the Science of Science Policy (SoSP) community of interdisciplinary researchers and policymakers, who seek to provide a scientifically rigorous basis for informing science policy.

The fundamental question that motivates the Science of Science and Innovation Policy community is, how can the United States use scarce scientific resources more efficiently and effectively to promote scientific and technological progress, economic development and economic growth. This research is empirical and relies on access to data.

It is only by studying the scientific research enterprise, the range of actors engaged in innovation and specific public programs and incentives that scholars can provide evidence to policy makers.

The United States conducts $456 billion of research and development (R&D) activity annually (NSF 2015). The Federal government, the second largest R&D funder behind business, invests $122 billion each year through the work of over 15 federal mission agencies (e.g., Department of Defense and Department of Health and Human Services) and 70 sub-agencies (e.g., the Defense Advanced Research Projects Agency and National Institutes of Health), as well as 15 independent agencies such as the National Aeronautics and Space Administration (NASA) and the National Science Foundation (NSF).

Understanding this diverse and dynamic system is a daunting task. Yet our ability to study and understand this field is greater now that it has ever been because of our ability to work with new digital data sources, and benefit from advances in research design and empirical methods. Progress for my community of scholars is dependent on access to administrative data. I applaud the mission of the Commission and want to be sure that the federal science agencies are included in your efforts to make administrative data available.[1]

I would like to offer three examples of projects that used administrative data to provide policy-relevant analysis. Federal agencies routinely publish information on funded projects yet access to all applications is rare. Access to administrative records enables analysis of differences between funded and non-funded projects and allows the construction of quasi-experimental research designs to better discern causal effects.

Each of these three projects I mention was conducted through special negotiated agreements that involved contracts or exceptions to gain access to proposal submissions. All have been published in top journals.

First, Ginther et al (2011) conducted the first systematic investigation of racial and ethnic differences in National Institutes of Health (NIH) funding, using 88,000 Research Project Grants (R01), which is the most common mechanism NIH uses to fund science. The NIH IMPAC II grant database provides applicant's self-identified race or ethnicity. Ginther et al (2011)

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[1] There is utility to differentiating the difference between administrative data and scientific data. Administrative data capture agency processes, policies, and outcomes in pursuit of their mandated mission. In contrast, scientific data are the product of the agency's efforts.

found, after controlling for the applicant's educational background, country of origin, training, previous research awards, publication record, and employer characteristics, that black applicants were 10 percentage points less likely than whites to be awarded NIH research funding. Published in *Science*, this work was co-authored with Raynard Kington, former Deputy Director of the National Institutes of Health, and Walter Schaffer in the Office of the Director at NIH.

With this evidence, NIH Director Francis Collins, Ph.D., M.D., established the Working Group on Diversity in the Biomedical Research Workforce to develop effective strategies to recruit and promote the professional growth of underrepresented groups in biomedical research, from graduate study to granting of tenure. Based on the findings of the Working Group, NIH made a $500 million, ten-year commitment to improve diversity through

- Increasing the number of underrepresented minorities who study biomedicine (Building Infrastructure Leading to Diversity);
- Creating a national mentoring network (National Research Mentoring Network); and,
- Hiring a Chief Officer for Scientific Workforce Diversity.

Second, Lui and Agha (2015) examined the success of peer-review panels in predicting the future quality of proposed research using administrative data to track publication, citation, and patenting outcomes associated with more than 130,000 (R01) grants funded by the NIH from 1980 to 2008. Their analysis found that better peer-review scores are consistently associated with better research outcomes and that this relationship was robust even after accounting for an investigator's publication history, grant history, institutional affiliations, career stage, and degree types. A one–standard deviation worse peer-review score among awarded grants is associated with 15% fewer

citations, 7% fewer publications, 19% fewer high-impact publications, and 14% fewer follow-on patents. The results suggest that peer-review is doing a good job of picking projects. Further research can help program managers further refine the process.

Third, Sabrina Howell, in her dissertation and a forthcoming article in the *American Economic Review,* conducted the first large-sample, quasi-experimental evaluation of R&D subsidies using administrative data on ranked applicants to the U.S. Department of Energy's Small Business Innovation Research (SBIR) grant program. The results found that an early stage award approximately doubles the probability that a firm receives subsequent venture capital and has large, positive impacts on patenting and revenue, with stronger effects for more financially constrained firms. The results suggest that the SBIR program is accomplishing its objective: the results are not due to certification, where the award contains information about firm quality, but instead the SBIR program funds are used for technology prototyping, helping commercialize new ideas.

These readily accessible academic studies are in contrast to the often-used contract mechanism, which provides access to administrative data while limiting publication rights. Projects with limited publication rights are not useful for academic careers, thereby deterring academics from investing in such research. As a result, much of the analysis of these data is done by consultants, of varying quality and motives, conducting rather routine analyses, usually not employing the most advanced methods nor publishing the results in the peer-reviewed scientific journals.

These few examples demonstrate the need for ready access to administrative records to inform science policy and address the practices of federal

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agencies. In these few studies researchers have negotiated access on an individual basis, overcoming each agency's own unique procedures for accessing non-funded proposals, reviewer and panel rankings, and administrative records, which include additional principal investigator characteristics, project monitoring data and outcomes information.

Imagine what might be possible if procedures for access to administrative data were streamlined making their use relatively painless. This would require amending the *Federal Information Security Management Act of 2002*, and subsequent updates, which provide the framework of information security standards for the federal government's information systems. One straightforward work around is to ask program applicants to provide informed consent to use their data for research purposes.

There are currently no standard procedures for researchers to gain access to federal science agency administrative data. The situation can be even more onerous for obtaining data from state and other publicly funded programs. Existing procedures for gaining access, where they exist, are time-consuming to navigate, difficult to understand and present barriers to the use of administrative data.   Certainly, removing legal barriers that limit access for the research community is a needed first step.

In my work with federal agencies, one of the things that surprised me was the great degree of heterogeneity. Each agency has its own policies and procedures for gaining access to administrative data. For example, NIH established internal policies to determine when data from their records management systems can be disclosed for research purposes.[2] NIH provides different levels of access depending on a researcher's role. Federal

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[2] https://oma.od.nih.gov/forms/Privacy%20Documents/PAfiles/0036.htm

researchers can access data if they take yearly training in information security and privacy. NIH hosts a secure, encrypted environment that can be remotely accessed through a virtual private network. NIH staff who wish to access research grants data that are considered confidential and sensitive, such as unfunded grant proposals and reviewer rankings, require additional security background screenings. Personally identifiable information is highly restricted, often limited to a single person record at a time. If the need for expanded access to confidential and sensitive information arises, NIH staff can obtain a special data access agreement, which is limited to one-year duration. NIH staff can also sponsor a 'guest researcher' to obtain a data access agreement to access disaggregated awards data.[3] Sponsorship is at the discretion of NIH Institutes, Centers, and Offices. In most cases, these researchers have NIH grant support. External researchers are required to undergo the same clearances required for NIH staff. Researchers must request NIH clearance for any manuscript or presentations showcasing their work using NIH administrative data.

In contrast, many other federal agencies do not have specific policies or procedures in place to grant research access to administrative data. EPA and USDA participate in Census' FSRDC program, providing pollution abatement and food security population survey data, respectively.[4]

The Commission could strengthen efforts by developing overarching directives that coordinate and encourage data sharing with researchers across Federal agencies. One avenue for coordination and harmonization of agency policies and procedures is the Interagency Council for Statistical Policy. In addition, in October 2016, OMB released a notice of solicitation for

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[3] NIH policy for the guest researcher appointment is available in NIH manual chapter 2300-308-1 at https://oma1.od.nih.gov/manualchapters/person/2300-308-1
[4] http://www.census.gov/about/adrm/fsrdc/federal_partners.html

comments on a new policy directive "Release and Dissemination of Statistical Products Produced by Federal Statistical Agencies."[5] Interagency dialogue and assessments could identify how statistical agency policy development could be adapted and adopted for Federal research award and other administrative data.

Another avenue for coordination and information sharing has been the Interagency Working Group on Science Policy, coordinated by the White House Office of Science and Technology Policy (OSTP) and NSF's SciSIP program. The primary function of this Group has been to identify opportunities to develop tools, theories, and methodologies that will advance their common interest, recommend joint research, data, and evaluation projects and enable Federal agencies to collaborate, coordinate, and leverage resources and efforts.

One question that the commission has asked about is alternative ways to share administrative data, providing access to researchers while guaranteeing confidentiality, privacy and data security. For the science agencies I would like to advocate for a decentralized system of agency specific data enclaves. There are three reasons.

First, there are many nuances to agency operations: the way programs are operated, data are collected, and even how variables are defined. Pece (2016) provides an overview of the challenges of obtaining reliable R&D data from federal agencies. Standardization is required in order to be able to make interagency comparisons. The National Center for Science and Engineering Statistics (NCSES) and the Office of Management and Budget

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[5]

https://www.whitehouse.gov/sites/default/files/omb/inforeg/directive4/frn_comment_stat_policy_dir_4_addendum.pdf

(OMB) are working to establish a Federal R&D Community-of-Practice (R&D COP) to address agency questions on the interpretation of how to apply OECD Frascati manual. Adoption of standards would certainly reduce barriers to research using administrative data.

Second, my experience is that to best inform policy requires an understanding of context and the specific operation of the agency. The best efforts involve collaboration between academics and practitioners. Rather than simply taking data and conducting analysis there are many nuances and definitions to understand and appreciate and to make informed interpretations of the results.

Third, agencies have specific questions to address their mandate and to help them achieve their objectives. Policy relevant research projects are best-formulated and designed through interaction and collaboration. These interactions will benefit the scholarly community by providing more nuanced research questions and a deeper understanding the mechanisms that govern science funding and agency operations.

Some Science policy questions are universal across agencies but there are many hypothesis-driven studies that can be conducted using single agency data, perhaps linked to publications and patents. I think that there is plenty that we might say based on administrative records at the single science agencies. These would be questions about the effectiveness of different program interventions, selection processes and outcomes. Studies conducted at one agency can be replicated at other agencies.

Another opportunity is an expanded use of fellowships, and other temporary hiring authorities and mechanisms to bring in academic and other researchers

into agencies to access administrative data and conduct evaluations. Mechanisms to do this include the Schedule A excepted service authority and Intergovernmental Personnel Act.[6] The contract terms outline the access to program administrative data and analyses that the researcher would conduct. There seem to be various mechanisms in place across Federal agencies. Sharing these experiences across the Federal Government could provide a set of lessons learned to improve adoption and use.

I believe that a decentralized system allows for experimentation. Over time better practices will emerge and there will be more confidence in the relationships. This model would also create a dialogue between researchers and the policy community that is likely to increase trust on the part of the agencies and to provide researchers with more interesting and informed questions.

One question that I ask myself is if these administrative data need to be linked to other sources and what would those other sources be. Ultimately there is a hope that individual researchers can be tracked over their careers, however building such longitudinal data takes time. U-Metrics at the University of Michigan is one effort to accomplish this task. With greater familiarity with agency data, new questions emerge. A viable second phase could link agency administrative data with other records, such as those at the Census Federal Statistical Research Data Center (FSRDC). Indeed, Sabrina

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[6] More on Schedule A available at https://www.opm.gov/policy-data-oversight/disability-employment/hiring/#url=Schedule-A-Hiring-Authority; the Intergovernmental Personnel Act Mobility Program provides for the temporary assignment of personnel between the Federal Government and state and local governments, colleges and universities, Indian tribal governments, federally funded research and development centers, and other eligible organizations, more information available at https://www.opm.gov/policy-data-oversight/hiring-information/intergovernment-personnel-act/

Howell has such a project underway to extend her EPA work by matching to applicant and other firms over time and working with the FSRDC.

Great work has been done at the FSRDC but if administrative data will be housed there then the Commission should address some of the current barriers and limitations. The application and vetting process is very lengthy and time consuming – unsuited to academic clocks which are short and tick loudly. Currently, proposals must demonstrate value to the Census Bureau under Title 13 of the US Code. That requirement might be too stringent considering there are many worthy projects that may not have direct value to the Census or another agency but might have great social value.

Currently, the federal agencies are working together to provide the data on funded projects to researchers and the public in a standard format for funded projects with the Federal RePORTER platform.[7] I invite you to take a look at this website and it's capabilities to query on topics across the participating agencies. There are negotiations to add other agencies. Indeed these efforts would be aided if the Commission could encourage or otherwise incentivize all the federal science agencies to provide their data.

Finally I would like to address something that I have noted that really concerns me and has potential to derail this undertaking. There is fear at many agencies that allowing researchers to work with their administrative records will reveal negative findings about the agencies. At a time when the federal science agencies feel under attack this is certainly understandable. But only by looking at data we can identify problems, bottlenecks and improve processes and efficiency. If we accept the premise that government programs are necessary to address market failures, facilitate network externalities,

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[7] https://federalreporter.nih.gov/

reduce barriers to collaboration and take on fundamental projects that are beyond the scope of most American businesses, then innovation and American competitiveness can be improved. It is only by studying the scientific research enterprise, the range of actors engaged in innovation and specific public programs and incentives that can scholars provide evidence to policy makers.

Administrative data related to science and innovation policy cover a large number of administrative units beyond the federal agencies. At least one entity operates in each of the 50 states, with a mission of promoting innovation, entrepreneurship or science-based economic development. On top of this, consider all the activity in firms, research universities, institutes and labs and other non-profit and quasi-government organizations that have some stake in the outcomes related to science, scientific progress and commercial outcomes. Each has administrative data that could be studied to improve our understanding of the research and innovation enterprise. The federal effort in which the Commission is engaged can lead the way and set a model that states and other entities can follow.

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13

Testimony to the Commission on Evidence-Based Policymaking
Building Evidence for Communities of Color and Integrating Data for Public Good

Submitted by Cynthia Guy, Ph.D., Vice President of Research, Evaluation, Evidence and Data
The Annie E. Casey Foundation
February 9, 2017

I.   Overview

Good morning/afternoon, Commissioners. Thank you for the opportunity to testify before you. I am delighted to be here because your mission is closely aligned with the Annie E. Casey Foundation's commitment to build a brighter future for millions of children at risk of poor educational, economic, social and health outcomes.

Today, I would like to share with you the Foundation's insights into using data and evidence to develop the best possible policies for those children and families. To get better results, all levels of government must allocate scarce resources to strategies that work. But too often, policymakers fund well-intentioned approaches that lack evidence of effectiveness and end up failing the children they seek to help.

Most social scientists agree that randomized controlled trials (RCTs) are the gold standard for classifying evidence-based programs. Yet researchers and policymakers also understand that RCTs can be conducted only in a very limited set of circumstances. And even when an RCT is feasible, the results may not be applicable to other people, places and contexts. Because of these limitations, the Foundation urges the use of best evidence available rather than solely relying on RCTs.

The Foundation supports evidence-based work carried out by professionals with backgrounds in education, health and child and adolescent development.

In my testimony, I would like to cover three areas. First, the data tell us clearly that children of color face the greatest obstacles to opportunity. Programs and strategies should therefore demonstrate success in communities of color, and we should develop a more diverse group of researchers to evaluate those efforts. Second, government should adopt integrated data systems to identify broad community trends and patterns and develop solutions to respond accordingly. And finally, I will discuss why policymakers cannot afford to lose the critical information gained through the U.S. Census, American Community Survey and Supplemental Poverty Measure.

II.   Using Evidence to Make Better Decisions for Communities of Color

Our nation is more of a quilt than a melting pot, so the traditions, social practices and cultural dynamics in communities of color have formed very differently over generations compared to those in predominantly white communities. They can also vary greatly from one community of color to the next. A program that works well in urban Chicago, for example, will likely have little relevance in a rural Native American community.

Yet the traditional approach to developing evidence-based programs and practices often does not incorporate the perspectives, experiences and input of communities of color. These programs are largely tested with primarily white trial groups and are created by an overwhelmingly white scientific community. By failing to appropriately consider children and

families of color, developers and researchers miss the opportunity to gain critical knowledge about what does and does not work in diverse settings.

A close look at the development of evidence-based programs for communities of color reveals three major themes: 1) an absence of adequate funding for rigorous impact evaluations of programs geared toward communities of color; 2) a lack of culturally specific and sensitive data collection approaches in evaluations; and 3) a dearth of evaluation professionals with adequate knowledge and training on the cultural issues facing these communities. Indeed, many evaluators and researchers are not well versed in community engagement and participatory research techniques that build trust and partnership within communities already wary of being research subjects. Investments to address these three themes will help minimize the gaps in evidence-based programs and practices for communities of color.

Increasing and engaging more researchers of color will enable human service providers to learn more about what works best in communities of color from people who are more intimately familiar with the intricacies of those communities. The Casey Foundation's Expanding the Bench initiative aims to increase the small but growing number of researchers and evaluators of color and to strengthen their influence in the field. Expanding the Bench provides networking opportunities that connect researchers of color with funders and supports professional development activities that place those researchers in leading evaluation centers and research firms. We encourage more efforts in this vein.

We have seen progress. Some evidence-based programs have emerged to support communities of color. Strong African American Families (SAAF), for example, helps rural African-American families strengthen their relationships, improve parenting and help young people develop. SAAF has included specific ways for parents to help young people cope with discrimination in response to research that exposure to racial discrimination is a strong predictor of preadolescent and adolescent depressive symptoms and substance abuse,.

SAAF was developed by child psychologist Gene Brody with a foundation of rigorous research. The program follows the standards of the National Institute of Mental Health prevention research cycle, which requires longitudinal, epidemiological research on target populations before developing prevention programs designed for them. For more than a decade, Brody and his colleagues at the University of Georgia's Center for Family Research have worked to identify protective factors that allow some rural African-American children in the state to thrive despite living in more challenging circumstances than their white peers.

Evaluations of SAAF showed several areas of statistically valid success. When compared with a control group, youth participants experienced fewer problem behaviors, such as theft, truancy or suspension. Those who didn't drink alcohol were less likely to begin drinking, and those who did increased their use at a significantly slower rate. The program also showed improvements in parenting, with increases in positive communication and in youth protective factors, such as negative attitudes about alcohol and sex. SAAF also delivered some unanticipated health benefits: Youth participants showed lower levels of stress hormones, inflammation and cellular aging.

Another program, Con Mi MADRE (Mothers And Daughters Raising Expectations), works with Latina mothers and daughters in Austin, Texas, to instill a shared vision of higher education and make that vision a reality. Con Mi MADRE provides tailored services to mothers and their daughters, from the child's sixth-grade year until she graduates from college. Services include personal visioning techniques, development of intergenerational communication skills, college visits and financial literacy education.

Con Mi MADRE is designed to take advantage of close family ties in Latino culture to build confidence in two generations simultaneously. Once moms develop these skills, every child and grandchild in their homes benefit. In a program that serves 750 children per year, 100 percent of the participants graduate from high school, and 77 percent go on to college. Of those who attend college, 54 percent persist and/or graduate, compared with a 15 percent college graduation rate for Latinas throughout central Texas.

Con Mi MADRE demonstrates the importance of taking culture into consideration. While cognitive behavioral therapy is probably one of the best-known clinical evidence-based practices, the organization found it to be less effective with its Latino families.

To develop additional evidence about the effectiveness of programs serving communities of color, it is essential to listen to the communities themselves. We can learn from organizations applying evidence-based practices in a culturally relevant way and use their experiences to enhance scientific knowledge about what works for children and families of color. We can also learn from many successful local programs that are not deemed evidence-based but are building proof of their effectiveness by engaging in research, by placing joint emphasis on qualitative and quantitative outcomes and by developing community-centered approaches. Such programs combine academic and community knowledge to deliver effective, culturally relevant solutions.

III. Promoting State and Local Integrated Data Systems

Through decades of work with child welfare, juvenile justice and other public systems, we have encountered numerous challenges and frustrations caused by the inability of government agencies to share information that can help children. We advocate the adoption of an integrated data system (IDS) to link individual-level administrative data from multiple government agencies. By linking records across agencies and over time, an IDS creates a rich picture of individual service needs, participation and outcomes over many years. In some cases, individual records are linked together to form comprehensive, long-term household and family histories. We believe it is important to develop these systems for state and local governments, both of which play key roles in the management and delivery of education and human services essential to child and family well-being. Facilitating and accelerating data-driven decisions across agencies will also enable them to respond more swiftly to address needs and issues as they arise.

The federal government has been an important partner in promoting IDS development at the state and local levels. The field has benefited from continued federal efforts to clarify and emphasize that privacy regulations such as the Health Insurance Portability and Accountability Act and Family Educational Rights and Privacy Act actually allow and encourage data integration among state and local public agencies. Also important has been the federal role in supporting the costs of state and local IDS development and encouraging comprehensive approaches to public systems planning and management that require cross-system data sharing. For example, the Office of Management and Budget has increasingly exercised leadership here, directing agencies to use a portion of their budget for low-cost evaluations using administrative data and issuing State System Interoperability and Integration Project grants to seven states in 2014.[1] More broadly, the federal government has mandated and

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[1] See OMB-M-12-14. Grants were awarded to California, Colorado, Illinois, Indiana, Maryland, New York and Oklahoma, and interviewees confirmed their importance to IDS development in these states.

funded efforts to build longitudinal databases in every state with information on student achievement from early learning through workforce entry.

A significant number of state and local governments, as well as nonprofit and university partners under the governance of public agencies, already operate integrated data systems. By offering large sample sizes, longitudinal data and the ability to identify multiagency clients, an IDS is a valuable tool for policy analysis, program planning and monitoring and evaluation. Because of the sensitive nature of the data, organizations that house an IDS carefully follow privacy laws to protect the confidentiality of children and families, securely store data and maintain rigorous standards for use and access.

By using an IDS, states can understand whether their approaches are working or having unintended consequences for children. In Wisconsin, for example, child welfare workers and child support enforcement workers have routinely pursued child support orders to offset the cost of a child's out-of-home placement. But when researchers analyzed the administrative records in the state's IDS, they discovered this policy not only failed to recover costs but actually lengthened the time children spent in foster care. Acting on these findings, officials in the Department of Children and Families crafted a new policy. When it goes into effect, caseworkers will not collect child support from a parent during the first six months a child is in foster care and will apply new criteria in deciding to do so after that period.

An IDS can provide proof points to show a program is working and worth continuing. In Washington, for example, analysts used the state's IDS to evaluate the effectiveness of an innovative policy that reversed the typical practice of reducing or terminating Temporary Assistance for Needy Families (TANF) benefits when a child is removed from home and placed in care. Designed to speed family reunification by easing economic hardship, the new policy allows a parent to receive full TANF benefits for up to 180 days after a child enters care. The evaluation's positive findings on improving reunification rates without additional costs enabled state officials to keep the benefits in place.

Integrated data systems also advance two-generation approaches, which simultaneously address the needs of children and their parents so both can succeed. For example, the South Carolina IDS links inmate and household records (including use of mental health services, involvement with child welfare and juvenile justice systems, reliance on income support and student academic performance), which enables researchers to study the impact of incarceration on families. The state can use this information to improve family services and ease reentry.[2] In Oregon, the state's Center for Evidence-Based Policy used a combination of birth and parent records (from vital statistics, child welfare and programs related to self-sufficiency and substance abuse) to develop a model that predicts the likelihood of a child being maltreated by age 2 and placed in foster care by age 6. The data are geocoded down to the census-block level to create hot-spot maps that illustrate the prevalence of child maltreatment and foster care placement rates by location and are used to target preventive services to families.[3]

IV. Using Federal Data to Inform Better Decisions

Two of the most valuable data resources for the Casey Foundation and all practitioners of data-driven, evidence-based decision making are the decennial census and the American

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[2] DeHart, D, & Shapiro, C. (2016). Integrated administrative data and criminal justice research. *American Journal of Criminal Justice,* 1–20. doi:10.1007/s12103-016-9355-5

[3] Actionable Intelligence for Social Policy interview with C. Kelleher in 2016, retrieved from www.aisp.upenn.edu/qa-with-christopher-kelleher

Community Survey. Both are currently at risk. Another key resource for providing accurate assessments of government programs designed to help families, especially those with children, is the Supplemental Poverty Measure.

No data resource is more fundamental to the operation of our federal system than the decennial census, which plays a key role in allocating political representation and federal funds. Despite the importance of ensuring a complete and accurate count in 2020, Congress has required the U.S. Census Bureau to hold the cost of the next census at the same level as the 2010 census, approximately $13 billion. This significant budget constraint will make it all but impossible to meet, let alone exceed, the precedent for accuracy set in 2010. Even within the constrained spending levels, the census has been bound up in the ongoing continuing resolutions for funding government. In most cases, this means level funding with the previous year. For the census, which has a planned schedule of increased appropriations as we near 2020 implementation, level funding translates into a significant cut. We hope the Commission would consider two recommendations: 1) an increase in spending for the 2020 census, and 2) either an approach outside the traditional appropriations process for funding the census or a commitment to avoid level funding through continuing resolutions.

While the census provides basic, once-a-decade numbers essential to government operations, the U.S. Census Bureau's American Community Survey (ACS) provides a rich body of continually updated social and economic indicators that the public, private and nonprofit sectors rely on to target and improve policies, programs and investment. For example, staff at the Casey Foundation analyze ACS data to provide accurate information on child well-being disaggregated by geography, income, race and many other factors. Our KIDS COUNT Data Center has 4 million data points, many of which are derived from analyses of the ACS. These data are important to public and private organizations that are developing evidence-based programs.

For example, Congress uses the ACS data to allocate grants for homeland security, highway planning and construction, Medicaid, substance abuse treatment, community development, rural electrification, public transit and dozens of other programs. Community leaders use ACS data to analyze the emerging needs of their neighborhoods; plan for the future; and locate new schools, recreational areas, hospitals and police and fire departments. Businesses use the data to make key marketing, site selection and workforce decisions. In recent years, there have been repeated efforts in Congress to undercut the ACS by making participation voluntary (a change that will reduce response rates and raise costs of data collection, according to Census Bureau tests and international experience) and by reducing or eliminating its funding. To maintain this fundamental data resource for evidence-based policymaking, we must defend the ACS against attempts to undermine the accuracy and reliability of the survey. We hope the Commission would oppose making the ACS voluntary by acknowledging that the ACS is the long form of the census and part of the constitutional obligation for enumeration, and we urge you to address the importance of funding the ACS.

In 2011, the U.S. Census Bureau created the Supplemental Poverty Measure (SPM) to provide a more accurate measurement of poverty than the official poverty measure reported. The SPM measures the impact of a number of programs such as the Supplemental Nutrition Assistance Program and Earned Income Tax Credit, and it accounts for rising costs and other changes that affect a family's budget. The measure has advanced the nation's understanding of child poverty and the effects of safety net programs and tax policies on families. By using the SPM, researchers have determined that the rate of children in poverty has declined since 1990, while the official measure shows almost no change. Data-based benchmarks and measures like the

SPM are essential tools for evidence-based policymaking, and federal policymakers should use and sustain them.

V. Lessons and Recommendations

Discovering what works to serve children and families, particularly in communities of color, and proving the efficacy of culturally relevant approaches are still very much works in progress. Questions of balance between scientific knowledge and community experiences are ongoing. However, those involved in the program examples described earlier share the following observations:

- Evidence is necessary for broader adoption and scaling. Whether or not a program is recognized as "evidence-based," the presence of compelling proof provides greater assurance that an investment in a program will indeed deliver the desired outcomes. However, creating that assurance requires significant investments of time and money on the part of program developers.

- Partnerships are key in developing evidence-based programs. Research institutions, universities and government research agencies such as the Agency for Healthcare Research and Quality all have experience with creating evidence-based protocols and securing funding for promising programs that seek to prove their efficacy. Partnering with those institutions can give small organizations a leg up in achieving evidence-based status.

- Culture is key. Programs that deliver great results for one group may not do so for another. Understanding culture and incorporating it into the creation of an evidence-based program will help ensure success in communities of color. In addition, understanding community culture will help create local support and buy-in during the research and pilot phases of an evidence-based program.

- **Evidence comes in multiple forms.** When examining cultural relevance, qualitative evidence is just as important as quantitative in terms of determining a program's efficacy and effectiveness.

- **Evidence-based research must respect community values.** Data collection processes must be sensitive to communities to avoid making people uncomfortable, especially in cultures that consider family matters private or have a deep distrust for outside organizations. By respecting community values, data may be collected with more fidelity and more comprehensively and can be used to inform stronger research design and more culturally competent methodology.

- **The federal government must continue to play an important role in promoting IDS development at the state and local levels.** It can do so by defining federal privacy regulations in ways that encourage cross-agency data integration, by helping support the costs of state and local IDS development and by encouraging comprehensive approaches to public systems planning and management that require cross-system data sharing.

- A complete count of the 2020 census, a mandatory American Community Survey and valid benchmarks of economic well-being such as the Supplemental Poverty Measure are essential to support data-driven decision making at every level of government. Federal policymakers should protect and sustain these data resources and tools.

VI. Resources to Help Employ Evidence-Based Programs and Practices and Promote Data-Driven Decision Making

"Implementation Research: A Synthesis of the Literature," by Dean L. Fixen, Sandra F. Naoom, Karen A. Blase, Robert M. Friedman, and Frances Wallace (University of South Florida, 2005) http://ctndisseminationlibrary.org/PDF/nirnmonograph.pdfhttp://ctndisseminationlibrary.org/PDF/nirnmonograph.pdf

"Evidence-Based Programs and Practices: What Does It All Mean?" by Lisa Williams-Taylor (Research Review, Children's Services Council of Palm Beach County, 2007)

California Reducing Disparities Project website.

National Evidence-Based Practice Databases

While these databases may not hold a significant number of evidence-based programs focused on communities of color, they may be helpful in providing useful general information such as definitions of different types of evidence-based practices.

The Social Work Policy Institute (www.socialworkpolicy.org/research/evidence-based-practice-2.html) lists the following databases and registries, among others:

Blueprints for Healthy Youth Development (Center for the Study and Prevention of Violence)

California Evidence-Based Clearinghouse for Child Welfare

National Registry of Evidence-Based Programs and Practices (Substance Abuse and Mental Health Services Administration)

Social Programs That Work

Additional Resources

"Counting for Dollars: The Role of the Decennial Census in the Distribution of Federal Funds," www.brookings.edu/research/counting-for-dollars-the-role-of-the-decennial-census-in-the-distribution-of-federal-funds

"Surveying for Dollars: The Role of the American Community Survey in the Geographic Distribution of Federal Funds," www.brookings.edu/wp-content/uploads/2016/06/0726_acs_reamer.pdf

Actionable Intelligence for Social Policy, www.aisp.upenn.edu

TESTIMONY

James J. Hill, Jr., EdD

CEO, Proofpoint.net

Los Altos, CA

Before the Commission on Evidence-Based Policy Making—Public Hearing

February 9, 2017

Abstract

Policy and program success requires four evidence-related factors: (1) effective goal setting, (2) accurate, yet speedy, issue analysis, (3) an impartial solution selection process, and (4) follow-through and reinforcement. However, having a robust and interconnected infrastructure and "Big Data" isn't the same as having "Big Evidence".

With just two weeks of observation of the new Administration, one theme seems to be emerging: A desire – maybe an insistence – for rapid actions that make a big impact.

So, while there are many long term considerations that the Commission can address, delivering two or three quick, ground level, wins will serve as a notable indicator of the bipartisan promise of the evidence-based law on which this Commission was founded.

Dr. Hill Biography

Dr. Jim Hill is the founder and CEO of Proofpoint Systems, a provider of cloud applications that advance evidence-based organizational performance. Since 2003, he has led Proofpoint in digitizing the processes associated with gap and root cause analysis; planning, execution, and evaluation; and fair talent management to help clients and consultants produce better and more cost effective results.

Prior to founding Proofpoint, Jim was a career officer in the United States Marine Corps and an executive with Sun Microsystems. He is also a past president of the International Society for Performance Improvement.

Jim's extensive writings consist of numerous articles and book chapters including the *Handbook of Human Performance Technology* (3d Ed., 2006) and *Performance Interventions* (1999). His book, *Giving Away Power*, was published in 2013.

Jim has been featured in *Training*, *Sales and Marketing Management*, *Japanese Management Journal*, and *BPTrends* for his visionary approach to organizational performance. Along with his clients and the organizations he has led, he is a 3-time finalist for the American Business Award (Best New Software Product), the recipient of the *Cyber*FEDS Awesome New Technology Award, and a 6-time recipient of the ISPI Award of Excellence. He is the 2016 recipient of ISPI's Distinguished Service Award.

Jim is a graduate of The Ohio State University and received his doctorate (human and organizational improvement) from the University of Southern California.

He and his wife, Aiko, have four children and reside in Los Altos, California where they are active in their community.

Written Statement for the
Commission on Evidence-based Policy-making

Proofpoint.net

Introduction and Overview

Chair Abraham, Chair Haskins, and Commissioners joining us virtually, I'm Jim Hill and I'm delighted to be here with you this morning.

Having reviewed early drafts of the legislation, I appreciate the opportunity to contribute.

As the CEO of Proofpoint.net, I represent a cloud technology that helps organizations solve their biggest issues faster and more cost effectively than ever before. That takes evidence.

What Leaders Want

Our experience is that leaders just want clear answers to five key questions:

1. Do our program priorities align with achievable objectives?
2. How do we responsibly audit, govern, and allocate resources?
3. Who are we contracted with and are they performing?
4. How well are we integrated?
5. How do we assess ongoing programs and new requirements?

I founded Proofpoint.net to help answer these questions. Timely, accurate, and unbiased information leads to better and faster decisions, improved performance, and accelerated organizational evolution.

Government Needs Practical Evidence Now

The question facing the Commission is simple, "How do we make government smarter with all the data floating around?"

However, multiple factors call for a major change in the way we think about work-related evidence. Beyond policy and technology considerations, there is a *social* aspect that must be considered. As examples:

- It's estimated that world data will grow 50x over the next 10 years[1]
- There is virtually no data related to day-to-day transactional work[2]
- Organizational improvement programs have about a 70% failure rate[3] and probably higher[4]
- With the growth of virtual work and expansion of BYOD, people want easier access to their work tools and data
- And, Big Data is not Big Evidence.

This issue is so wide-ranging, that it may be prudent to tackle it *in short term, low cost chunks* that align to desired decision cycles and what will likely be a high demand, resource constrained fiscal environment.

I'd like to highlight some examples and offer recommendations for quick wins that advance your goals.

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[1] J.P. Morgan Chase & Co. (2016). Unpublished venture capital briefing. San Francisco. January.

[2] Ibid.

[3] Sources include Hammer & Champy, 1993; Beer & Nohria, 2000; Kotter, 2008. See additional reference information at the end of this paper.

[4] Druckman, Singer & Van Cott, 1997; Smith, 2002; Hill, 2004.

**Written Statement for the
Commission on Evidence-based Policy-making**

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Reference Case #1: Practical Program Monitoring

In 2013 a federal executive approached us with a problem: His staff was manually producing 80 daily and weekly reports.[5]

Little of the information they needed was in enterprise systems. Instead, it was in static documents and the heads of people.

So, rather than focus on planning and management, they were exchanging scores of emails and phone calls each day.

You can appreciate the inefficiency. You'll also sense that the millions of data points they were using and creating would never be available to others.

Nearly every federal program works this way. And, popular management applications don't help. They are designed for individual projects or, maybe, small groups. As a result, there is no effective way to bring thousands of projects or programs together.

This leads to my first recommendation to <u>pilot a common enterprise project management tool</u> in a willing department, agency, or program.

Doing so will demonstrate the power of capturing day-to-day transactional data that is now lost.

This recommendation is relevant to the Commission's charter in that it provides a use case for creating practices for monitoring programs and assessing their outcomes.

Reference Case #2: Simplifying Data Collection & Access

My second example begins with a recent report that more than 240 hospitals have been penalized three years in a row for infection-related issues. With an average penalty of $500K, [6] that is more than one-third of a billion dollars wasted.

In a related event, I recently visited a notable acute care facility where I was shown two walls covered in 8 ½ x 11 sheets of paper.[7] Each sheet contained a graph that staff members were assigned to manually update each day – using a marker.

At the end of each month, the graphs were filed away.

While hospitals spend many millions on electronic health records, patient informatics, and bill collection technologies, healthcare administration is nearly all done via paper, spreadsheets, and white boards – and it's a massive vulnerability to the Nation's health.

So, my second recommendation to <u>pilot a common quality management tool</u> with a willing healthcare system.

This will lead to better patient outcomes and reduced readmissions. It will also cut administrative time, increase staff morale, and reduce turnover.

This recommendation aligns to your charter by eliminating barriers to accessing data that organizations already collect. In this case, the collection effort is so manual that the data will never get used by the right people or at the right scale.

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[5] Proofpoint.net use case. Client not disclosed.
[6] Punke, 2016.
[7] Proofpoint.net use case. Client not disclosed.

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A Final Thought & Recommendation

My final comment is that data access and exchange are not technically hard. They are simply electronic handshakes.

But the barriers are enormous. Beyond longstanding policies, on the vendor side the core philosophy of your major providers is to intentionally not integrate, or to do so at great expense.

However, the "social" side of evidence exchange presents an opportunity. Make it personal.

So, I recommend the establishment of a federal "Goal Repository," starting with a pilot program that rewards participation.

The Goal Repository would use interpersonal sharing to drive interagency sharing. It would cultivate thinking along the lines of, "This is what I'm trying to do (goals). I wonder if anyone else is working on a similar issue." Leaders would connect and share information of mutual value based on mutual interests.

Conclusion

Finally, in your report to the President and Congress, I urge the Commission to recommend an approach characterized by "low cost immediacy."

Addressing the issue via multiple, successful, pilots will produce frameworks that others can easily adopt. That will result in speed, cost efficiency, and improved productivity at every level of government.

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Statement submitted to the Commission on Evidence-based Policymaking
Public Meeting, February 9, 2017
San Francisco, CA

Submitted by: David S. Johnson, Research Professor and Director of the Panel Study of Income Dynamics, University of Michigan[1]
Co-signers: Rebecca Blank (University of Wisconsin – Madison), Sheldon Danziger (Russell Sage Foundation), Kathryn Edin (Johns Hopkins University), Irv Garfinkel (Columbia University), David Grusky (Stanford University), Michael Laracy (Annie E. Casey Foundation), Luke Shaefer (University of Michigan), Timothy Smeeding (University of Wisconsin – Madison), Laura Speer (Annie E. Casey Foundation), Jane Waldfogel (Columbia University), Renee Wilson-Simmons (National Center for Children in Poverty, Director), Christopher Wimer (Columbia University), James P. Ziliak (University of Kentucky)

The timing for a bipartisan commission on developing evidence-based policymaking is almost prescient. Many of us have been involved with the process of creating this commission, and we thank Speaker Paul Ryan and Senator Patty Murray, Chair Katharine Abraham, Co-Chair Ron Haskins and all of the Commissioners on their work and dedication to this important goal – "*...developing a bipartisan strategy to ensure that evidence increasingly informs the important decisions that affect the lives of Americans.*"

Our purpose in this statement is to focus on three points:
- Support and independence must be provided to the federal statistical agencies to "*improve statistical protocols*" for producing timely, accurate and relevant statistics, specifically, the Supplemental Poverty Measure (SPM).
- Support must be provided to statistical agencies for the continued production of the SPM, as it is the only official statistic that measures the effectiveness of government tax, transfer, and social insurance programs.
- Support must be provided to construct a data infrastructure that facilitates linkages between survey and administrative data, which can be used to improve the SPM.

Our request is slightly different than many of the other statements to the Commission. We focus on the Commission goals related to improving statistical data series and statistical protocols as described in the Commission's charge.[2] These common protocols and commonly accepted statistical indicators are critical. As Katherine Wallman, the recent Chief Statistician of the U.S., stated in last week's Guardian article (Chalabi (2017)), "*We should all be starting from the same*

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[1] Contact info: Survey Research Center, 426 Thompson St. Room 3234, Ann Arbor, MI 48106; johnsods@umich.edu

[2] *"(1) determine the optimal arrangement for which administrative data on Federal programs and tax expenditures, survey data, **and related statistical data series** may be integrated and made available to facilitate program evaluation, continuous improvement, policy-relevant research, and cost-benefit analyses by qualified researchers and institutions while weighing how integration might lead to the intentional or unintentional access, breach, or release of personally-identifiable information or records; (2) make recommendations on how data infrastructure, database security, and **statistical protocols** should be modified to best fulfill the objectives identified in paragraph (1)."*

numbers. I think that's a fear that many of us have at this point - it's that picking and choosing your numbers to suit your politics is not the way that we ought to be doing it."

Importance of Federal Statistics

The white paper presented to the Commission as background, "Using Administrative and Survey Data to Build Evidence,"[3] stressed the importance of the foundational evidence represented in aggregate indicators as one key component of evidence-based information; the SPM and the Principal Federal Economic Indicators (PFEI) are key foundational evidence. The other white paper, "Overview of Federal Evidence-Building Efforts," describes the responsibilities of statistical agencies, which include producing reliable data, accurate and objective statistics, and protecting. Without a statistical system that can work in this framework, the task of building a data infrastructure to improve statistics will be difficult, if not, impossible.

The country's need for reliable and trustworthy statistics on the economic well-being of the nation is critical. This can only be accomplished with official statistics, government survey collection,[4] and data integration with government administrative data. In fact, the recent National Academies of Science's Committee on National Statistics report (Groves and Harris-Kojetin, 2017) states it best – **"***Federal statistics provide critical information to the country and serve a key role in a democracy*.**"**

The need for reliable and trustworthy statistics are summarized in a variety of Statistical Policy Directives issued by OMB, and in a sense, provide guidelines for the statistical protocols used in the statistical system. Statistical Policy Directive 1 ensures the quality and independence of the statistical agencies. Statistical Policy Directives 3 and 4 provide guidance in the dissemination of the principle federal economic indicators, and other important foundational evidence.

The Importance of Poverty and the SPM

The poverty measure has an elevated distinction as recognized by OMB Statistical Policy Directive 14. Even before these important directives (1, 3 and 4) were issued by OMB, Statistical Policy Directive 14 (released in 1978) instructed the Census Bureau to produce an official poverty measure, and stated: "*Other measures of poverty may be developed for particular research purposes*." It is essential that a poverty measure reveals the effect of major income support programs designed to aid the poor. Many such programs, however, are excluded from the official poverty measure. Such programs include housing supports, major food and nutrition programs, and refundable tax credits. Only the SPM can provide evidence on these major social programs.

Because the official poverty measure does not account for any of the government tax and in-kind transfer programs, it does not provide an accurate view of the financial status of low-income

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[3] See links for white papers, https://obamawhitehouse.archives.gov/sites/default/files/omb/mgmt-gpra/using_administrative_and_survey_data_to_build_evidence_0.pdf and https://obamawhitehouse.archives.gov/sites/default/files/omb/mgmt-gpra/overview_of_federal_evidence_building_efforts.pdf

[4] See Joe Hotz's statement to the CEP on Jan 5, 2017, where he stresses the importance of government survey data.

people. It only includes direct cash social insurance (e.g. Social Security and Unemployment Insurance) and welfare (e.g. Temporary Assistance for Needy Families and Supplemental Security Income) programs. As such, any changes in benefits from the Supplemental Nutrition Assistance Programs (food stamps) or tax credits like the Earned Income Tax Credit and Additional Child Tax Credit will have no direct impact on the poverty rate, even though outlays on these programs far surpass those of the means-tested cash transfer programs. In addition, the official poverty threshold, the dollar amount such that families with income below it are poor, was based on food spending in the 1960s, updated with inflation until today. But housing today, not food, is the single largest element of households' budgets. The official thresholds are also the same for San Francisco and Merced, and New York City and rural Mississippi. Finally, the official poverty measure does not account for the income sharing between a single parent and a live-in partner – they could both be poor under the official measure even though they live together and share resources.

The SPM has been developed over the past 25 years with bipartisan participation by researchers and policymakers, and remedies the flaws in the official poverty measure. The main impetus for the new measure arose out of the National Academy of Sciences report, Measuring Poverty: A New Approach, released in 1995. In this report, a bipartisan and distinguished group of academics and researchers (Rebecca Blank and Sheldon Danziger, both co-signers today, were members of the panel) agreed on recommendations for a new method to measure poverty in America. This new measure has been examined by many bipartisan groups, including meetings at The Brookings Institution, American Enterprise Institution, and Wisconsin's Institute for Research on Poverty. All along the process, these discussions were guided by the direct involvement and continued research at the federal agencies, especially BLS, Census and OMB.

Three events solidified the support for an SPM measure – Rebecca Blank's Presidential Address at APPAM that suggested that the new measure be a supplement for, and not a replacement of, the official poverty measure; Mayor Bloomberg's call for the Center for Economic Opportunity to produce an alternative poverty measure to provide more accurate evidence for NYC; and the proposed Congressional legislation, the Measuring American Poverty Act. These activities centered the discussion on using a common supplemental poverty measure in conjunction with the official measure.

Finally, in 2010, the President proposed funding for the SPM in the 2011 Budget, and OMB issued guidance via the Interagency Technical Working Group. The detailed Department of Commerce congressional budget stressed the importance of the new measure for evidence-based policymaking stating: "*A more accurate measure of poverty will provide policymakers with more accurate information for modeling changes to their programs and improving the evaluation of the effectiveness of programs for the disadvantaged. Poverty is a critical indicator of how widely prosperity is shared in our economy and is a benchmark for targeting resources toward the disadvantaged.*"[5]

The SPM is much more accurate than the current official poverty measure, which has been basically unchanged since its inception in 1968. Even Adam Smith realized the importance of defining poverty in terms of the conditions of the day "…*a creditable day-laborer would be*

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[5] See http://www.osec.doc.gov/bmi/budget/11CJ/Census%2011%20portrait%20final.pdf

ashamed to appear in public without a linen shirt, the want of which would be supposed to denote that disgraceful degree of poverty..." Yet the official poverty thresholds are based on food costs from the 1960s.

Unlike the official measure, the SPM thresholds are updated to reflect a current basket of necessities (based on food, clothing, shelter and utilities), different thresholds are created for different living arrangements, for renters vs owners, and for differences in the cost of living across geographic areas.[6] Poverty is determined by combining all of the income from spouses and cohabiting partners and includes all children, as opposed to the official measure. As mentioned earlier, income includes not just cash income but also the value of government in-kind transfers as well as tax credits (and tax payments). Finally, the market basket continues to relevant for the current period.

In addition to a much more inclusive definition of resources, the SPM also takes into account the increasing costs of health care and child care and work-related expenses. As such, it is definitely a "*more accurate measure of poverty"* as stated in the Commerce Department budget (mentioned above). Because the SPM is annually published by the federal statistical agencies,[7] it represents a critical component of the foundational evidence required to determining the effectiveness of policy.

The SPM also changes our perception of the poor – who they are. Due to the inclusion of in-kind transfers and refundable tax credits, children and single parent families are a smaller fraction of the poor. With child care and work-related expenses, workers are a larger share of the poor under the SPM, as well as families spending on private health insurance. The SPM demonstrates that people living in poverty are not just those without any income. Just as Adam Smith recognized, it takes more to live in today's society.

As Speaker Ryan (when he was chair of the House Budget Committee) stated in his budget document, "Economic Opportunity in America," July 2014,[8] (where he introduced the concept of the Commission), "*The first task is to determine how we should define progress*," and he continued by suggesting that the official poverty measure was flawed, and that the SPM would better measure the progress of poverty, and even stating, "*Using more comprehensive poverty measures strengthens this case. Using the SPM, Wimer et al show that child poverty plummeted beginning in 1994*."[9]

Since its inception in 2010,[10] there has been extensive research using the SPM to evaluate government programs. The 2014 Economic Report of the President highlighted the SPM in their chapter on the War on Poverty to demonstrate that with government programs we have not lost the War on Poverty as the flat trend of the official poverty measure suggests. In addition, the bipartisan report, "Opportunity, Responsibility and Security: A Consensus Plan for Reducing Poverty and Restoring the American Dream," (on which Ron Haskins was a coauthor)

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[6] Garner (2010) discusses the details of the SPM thresholds.

[7] See Renwick and Fox (2016) for the most recent publication.

[8] See http://budget.house.gov/uploadedfiles/expanding_opportunity_in_america.pdf

[9] See also Winship (2014) for support for using the SPM.

[10] Short (2011) is the first official report that produces an SPM.

highlighted the SPM as the preferred poverty measure, by a wide spectrum of policy researchers, in evaluating the trends in poverty and the impact of government tax and transfer programs. The attached reference list shows many papers that examine the impact of the SPM on the poverty rates of a variety of demographic groups, including the official publications at the Census Bureau and BLS.

Recent research shows that only in using the SPM can we measure the impact of public policy. For example, Bitler, Hoynes and Kuka (2016) demonstrate the impact on child poverty reduction from the social safety net using an SPM-like measure, and Wight, Kashal and Waldfogel (2014) show that the SPM finds impacts on very low food security for children.

Finally, some of the most important work that uses the SPM, in conjunction with the American Community Survey, to measure the effectiveness of government programs has been conducted at the state and local levels. The Center for Economic Opportunity in NYC has led the way on developing an SPM for NYC. In fact, Mayor DeBlasio initiated the OneNYC project that includes poverty reduction goals using their SPM.[11] For example, NYC has also used the SPM to evaluate the effects on poverty for workers negotiating wage contracts and to inform the Mayor's housing policy on annual rent changes in regulated units.

Wisconsin and California also have state-specific SPMs, which are used to determine effectiveness of state-specific polices like state-level EITC and child care. For example, in California the state level SPM has been used to evaluate the expansion of the California EITC, showing that this expansion will "…*increase the resources of a substantial number of Californians living in poverty and deep poverty.*"[12] Oregon and Minnesota have worked to develop measures, the Urban Institute has initiated a number of projects with states (Minnesota, Connecticut, Georgia, Illinois, and Massachusetts), and the Center on Poverty and Social Policy at Columbia University provides the SPM for all states.[13]

Importance of Administrative and Survey Data Linkages

The SPM is well-positioned to be an example of an economic indicator that integrates survey and administrative data, while highlighting the importance of the new data infrastructure. All of the state-level SPMs already adjust their estimates using the state-level administrative data on program participation to ensure that the aggregate benefits in the survey match the state totals (e.g., SNAP and housing). The Urban Institute's TRIM model has been using integrated data to model improved estimates of SNAP and TANF in the SPM (see CBPP).

It is widely known that the government surveys do not completely account for all government transfer programs; many respondents mis-report or under-report their benefits. Recent research by Meyer, Mok and Sullivan (2015) documents this for a variety of surveys, especially the amounts of income from government transfer programs.

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[11] See also Matthew Klein's statement to the CEP on Nov 4, 2016
[12] See http://inequality.stanford.edu/sites/default/files/EITC-california.pdf
[13] See https://www.povertycenter.columbia.edu/data-release/2016/8/23/historical-spm-data

Meyer and Mittag (2015) demonstrate that the under-reporting for SNAP creates a downward bias in the estimate of the poverty reduction impact of SNAP. Integrating the administrative data on SNAP with the survey data on other income shows that SNAP is much more effective at reducing poverty than shown in uncorrected survey data. Hence, this data infrastructure with all State-level SNAP benefits (and other programs such as WIC and TANF) will provide much better foundational evidence on the effectiveness of these programs.

Alternatively, Hokayem, Bollinger and Ziliak (2015) show that earnings are over-reported for low income families in the surveys as compared to their earnings records at IRS and SSA. By integrating survey and administrative data, they demonstrate that poverty is higher than shown in the official measure, suggesting such a correction would similarly show higher poverty in the SPM. Hence data infrastructure that included administrative earnings and income data would improve the estimates provided by the SPM.

Because of this under-reporting and measurement error in income surveys, some researchers suggest that using a consumption-based measure of poverty may be more accurate (see Meyer and Sullivan, 2012). While multiple poverty measures would help to assess the poverty trends and composition of the poor, the SPM is currently the only official measure that can account for the impact of government programs on a timely basis. Hence, we believe that the focus should be on improving the measure of income in the SPM. This is also supported in the recent legislation proposed by Senator Mike Lee, the Poverty Measurement Improvement Act, which recommends the data linkages necessary to obtain an improved measure of resources. As a result, building on the current data infrastructure that exists in the federal statistical agencies is the best method to further statistical protocols and highlight the SPM as critical foundational evidence.

Recommendations

We recommend that the Commission's report include a statement that OMB should continue support and funding to Census and BLS to produce the SPM alongside the official poverty measure.

We recommend that the Commission's report encourage statistical agencies to use the integration of survey and administrative data to improve the measure of resources and thresholds in the SPM, and in national statistics more generally.

We recommend that the Commission's report include a statement supporting statistical analysis and research at statistical agencies.

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Strengthening Data and Evidence to Improve Education Programs

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RTI International is an independent, nonprofit institute whose mission is to improve the human condition by turning knowledge into practice. RTI staff are experts in education data from system development to data collection, linking, analysis, reporting, communication, and use, and including administrative and survey data at both the K12 and postsecondary education levels.

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Introduction

US education is an enormous enterprise facing daunting educational challenges. Practitioners, policymakers, researchers, parents, and other stakeholders seek evidence-based strategies for improving student outcomes. In this brief we describe several important opportunities for strengthening state and federal education data to help improve K12 and postsecondary education programs.

State Education Data and Evidence

Important Data Differences

Some federally funded programs that are administered at the state and local levels—such as unemployment insurance and the Supplemental Nutrition Assistance Program (SNAP)—collect standardized individual-level data, which are reported to the relevant federal agencies. While K12 education is also administered at the state and local levels (with some federal funding), state and local education data systems vary widely and, in addition to being used for state and local purposes, report aggregate data only to the US Department of Education (USED).

Federal Investments in State Education Data

Historically, state education agencies collected aggregate administrative and performance data from school districts for state and federal reporting purposes. After *No Child Left Behind* was enacted in 2001, most states began building student-level longitudinal data systems to track individual student performance over time. Since 2006, USED has awarded six rounds of competitive grants to states to support the development, building, securing, and use of these statewide longitudinal data systems (SLDSs). Early grants focused on building K through 12 data systems and states have increasingly been able to collect and link the following at the student level:

- demographics, disabilities, and behavior
- courses, tests, and grades
- assigned teachers' qualifications and experience
- participation in career and technical education, gifted programs, etc.
- K12 outcomes such as high school graduation and college readiness
- school climate survey data and social emotional learning data

Subsequent SLDS grants focused on integrating data from additional sectors, including early childhood education, postsecondary education, and workforce. Additional federal grants (USDOL Workforce Data Quality Initiative and USDHHS early childhood learning) have also helped to expand SLDSs beyond K12 to P20W+ data systems, covering the complete pipeline from early learning through postsecondary and workforce preparation and outcomes, and including nontraditional paths through adult education.

Turning Data into Evidence

Student-level longitudinal data make it possible for educators, policymakers, researchers, and even parents and students to understand the factors that are associated with better outcomes as students transition to the next education level or into the workforce, including improved learning; persistence, promotion, and completion; and labor market success. These data can help to determine predictors of positive outcomes, develop early warning tools, and identify effective programs and practices.

In addition to addressing state and local information needs, SLDSs can support federal evidence requirements. The new Every Student Succeeds Act, Workforce Innovation and Opportunity Act, and Education Department General Administrative Regulations now require state and local agencies and awardees to link cross-sector data and to propose, develop, and use an evidence base for federally funded programs. The new grant evidence categories encompass traditional causal studies, such as RCTs and quasi-experiments, as well as well-designed correlational studies, all of which can be informed by SLDS data.

States and districts have developed sophisticated and secure data systems that link cross-sector data and offer access under the relevant federal, state, and district privacy laws. However, more support is needed to develop new administrative data science methods that produce credible evidence and to encourage appropriate use of the data and evidence to inform policy and practice.

Recommendations

We recommend that CEP:
1. Encourage continued federal investment in the development and use of SLDSs; and

2. Promote development of administrative data science methods that produce sound and accessible correlational, quasi-experimental, and causal evidence.

Developing these systems and methods will simultaneously help to meet federal, state, and local demands for evidence of effective education practices, programs, and policies.

Federal Education Data and Guidance

RTI is a member of the Postsecondary Data (PostsecData) Collaborative, which made several recommendations in comments provided to CEP in November. Below, we develop several of these recommendations further.

1. Make recommendations that address the administrative and legal barriers to data linking and access.

Administrative data, when de-identified and linked appropriately, can provide important context for understanding the education landscape. Understandably, access to Internal Revenue Service (IRS) and Social Security Administration (SSA) data is highly controlled for privacy and security reasons. However, as the recent release of Raj Chetty's paper, *Mobility Report Cards: The Role of Colleges in Intergenerational Mobility,* shows, linked data can be handled properly and enable new analyses that cannot be undertaken using currently available data such as the institution-level Integrated Postsecondary Education Data System (IPEDS) or the National Center for Education Statistics' sample surveys.

While IPEDS and the sample surveys are important sources of data, each has its limitations. IPEDS can only be used to explore differences at the institution level and does not, for example, currently collect detailed outcomes on all student populations. Because these data are not student level, they cannot be merged with other data that could provide the missing student characteristics. Further, while a useful source of student-level education data, the National Postsecondary Student Aid Study, Beginning Postsecondary Students Longitudinal Study, and Baccalaureate and Beyond Longitudinal Study are constrained by their sampling designs. Because they are nationally representative, but not state representative in most cases, these surveys cannot currently be used to make comparisons across or within states, despite a growing interest in making such comparisons.

The Western Interstate Commission for Higher Education Multistate Longitudinal Data Exchange, the Southern Regional Education Board State Data Exchange, and the University Innovation Alliance are examples of individual states and institutions agreeing to share data with a common goal of understanding the enrollment and completion patterns of students and improving student outcomes. By recommending actions to simplify the sharing and comparing of data across states, the Commission can signal its support of these existing agreements and encourage other states to explore similar agreements.

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2. Align definitions and metrics across federal laws.

Establishing common definitions for data metrics across federal laws would reduce administrative burden and create comparable outcome measures across federal programs. Federal laws such as the Higher Education Act, the Workforce Innovation and Opportunity Act (WIOA), the Perkins Career and Technical Education Act, and the Elementary and Secondary Education Act contain similar metrics that could be streamlined. While these recommendations require Congressional action, consistent definitions can cut costs and reduce security risks by minimizing the number of redundant data collections across the federal government. The Commission can recommend a legal framework that uses the proposed national clearinghouse to align metrics around:
*   student enrollment rates in colleges and programs
*   college readiness
*   college and program completion
*   employment rate or job placement rate
*   earnings
*   credential attainment

Aligning metrics across federal agencies would streamline existing reporting and allow consumers to make informed decisions about programs that span agencies. Standard definitions would also create opportunities to combine and expand data dashboards and reporting for additional purposes such as consumer information and regulatory compliance. For example, the College Scorecard could include data from DOL's WIOA reporting in order to show training program outcomes and serve as a resource for students to understand outcomes for different career pathways.

Source: Adapted from PostsecData Collaborative November 14, 2016 comments to the Commission.

3. Leverage existing data to decrease burden, streamline reporting, and answer critical stakeholder questions.

Existing administrative data can help policymakers, institutions, and students answer critical questions about postsecondary access, success, post-college outcomes, and affordability, such as:
o   How many low-income, Pell Grant-recipient, first-generation, veteran, adult, transfer, and part-time students—who make up the new majority on today's campuses—attend each college? Do these students graduate?
o   How long does it take students, particularly those who enter college with less academic preparation or fewer financial resources, to complete college?
o   Do students who don't graduate transfer—or do they drop out?
o   How much money do different types of students borrow for college and how do their repayment outcomes vary?

    o   Can students find jobs in their chosen field and how much do they earn?

Data from the USED, SSA, Department of Defense (DoD), and Department of Veterans Affairs (VA) provide valuable information on important subgroups of students who are often overlooked, including Pell Grant recipients, student loan borrowers, and student veterans. For example, SSA and IRS tax records have, in limited instances, been used to report employment and earnings outcomes at the program level to better understand students' workforce outcomes. USED's IPEDS and National Student Loan Data System include information on financial aid and student access and success that can be disaggregated to examine progress for student subpopulations. DoD and VA, which house data on student veterans, financial aid, and recruiting, can be used to answer these questions specifically for the veteran population. Linking these data sources can reveal opportunities to eliminate duplicative data collections and decrease reporting burden on data providers.

RTI recognizes the importance of limiting data collections to those metrics that have a specific and valuable purpose in meeting administrative, policymaking, and research needs. These data collections should also include a robust reporting function, returning data back to colleges and programs for benchmarking and improvement purposes and to add value for the data providers. Any clearinghouse or data system solution that is considered by the Commission should focus on answering critical questions about student outcomes; balancing reporting burden with analytic value; and including outcomes data on employment and earnings for all students, at all postsecondary levels and in workforce programs.

Source: Adapted from PostsecData Collaborative November 14, 2016 comments to the Commission.

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At the October 21st CEP hearing, Emmet McGroarty of the American Principles Project was the only testimony at the hearing opposing the continuation or increase of federal collection of individual student data. Mr. McGroarty is not the only man or woman in America that opposes the federal unit record system of student data. Grassroots organizations, made up of highly skilled, organized and well-researched individuals are also fighting to protect our children and grandchildren. The pushback on data collection is vigorous and we won't stop until we have a victory.

Numerous experts are seeking to repeal the prohibition in the current Higher Ed Act Section 134 against a federal student-unit record system that would collect personally identifiable information on higher education students and link education data to workforce data. I stand with Mr. McGroarty in asking that the protective barrier to government intrusion into citizen's private lives remain intact.

This United Commission report to the President and Congress required by the law, is considering how the integration of data "might lead to the intentional or unintentional access/breach, or release of personally identifiable information or records." This is a very serious question for the Commission to answer. The Commission is also faced with the question of whether the government even has the right to collect such personal data.

States were incentivized to create massive databases in 2002, allowing more than just the collection of academic performance and biographical information on individual students in K-12, as well as higher education. Prior to this, the law prohibited the collection of PII such as disciplinary history, social emotional development and extra curricular activities of individual students at the federal level. However, Obama's gutting of FERPA in 2012 now means that government education officials now have the freedom to disclose a student's PII without parental consent.

Mr. McGroarty also presented this profound statement to the Commission on Evidence Based Policymaking: *"Such databases make freeborn American citizens objects of research and study. It assumes that the goal of benefiting others in society justifies the powerful federal government collecting and disseminating millions of data points on individuals often without their expressed consent. This fundamentally changes the relationship between the individual and government. Our republic rests on the idea that the citizens control the government. That cannot truly happen when government sits in the position of intimidation over the individual."*

Having the government know the state of your social and emotional development, along with data from other data sets, like medical records that the Commission is considering, is very disturbing. The Commission is focused on the

collection of data from higher education for consumer benefit and workforce planning. It would be one thing for colleges and universities to voluntarily create a private association that collected the kind of data the feds are considering in order to provide them with the data to back their marketing claims. However, the Commission is looking at having the data collected by the government.

The very thought of such data collection reveals the current state of affairs for higher education. The image of the modern university is rapidly declining from one where people with intellectual ability go to pursue an even more learned understanding of a subject, towards one of a business in competition with other businesses offering an ever-expanding menu to try to eek out additional market share. According to the government, the consumer (student) could use such data collected by a private association, policed by industry competitors to make sure it is accurate, to choose which business (university) to attend or not attend if they did not wish to be part of such data collection. The act of collecting this data by government order takes that choice away from students and can use the coercive power of law to force them to provide their PII to an entity which is not even part of this business sector.

I ask the Commission to consider whether the government can create a data clearinghouse and whether it can be self-funding. I am urging the following if such a clearinghouse is created:

1. The government must collect only aggregate data, not personally identifiable information.
2. Parents and students must have the ability to review and correct records and notice as to who can see those records.
3. If such a database is created, it should be funded through the general treasury, because this gets at the heart of the decay existent in public private partnerships.

The law only considers the cost of the work of maintaining such a database and looks for a return of investment. Such a data system will have the intimidating power of government behind it. The creation of self-funded enterprises removes an important check that the congress provides. Checks and balances are so critical when it comes to the collection of data.

I urge the Commission to resist the effort to collect and share personal family and student data. I also recommend that any such information that is collected be excluded from any recommended clearing house and that such a clearing house be subject to all the checks and balances that is provided by our Constitution. In addition to whether the government should have records in the first place, I propose that parents and students have a means to review and correct their records and determine who may see them.

Critical Issues for the Commission on Evidence-Based Policymaking

Founded in 1991, Social Policy Research Associates (SPR) is a nationally recognized research, evaluation, and technical assistance firm located in Oakland, California. Our work provides insight to government, non-profit and foundation clients on what works in workforce development, human services, education and effective philanthropy. After more than 25 years of working with dedicated people working on behalf of some of some of our nation's most vulnerable populations, we've learned that people are better able to make good decisions when they have good information. Program directors want to do their best work and create lasting impact on their clients. This requires high-quality data, rigorous analysis, and the ability to act on the lessons from both. The commission's work represents an excellent opportunity to create infrastructure and culture to advance two areas critical to that ability:

- Promoting evaluation requirements for publicly-funded programs that are both rigorous and realistic

- Improving the quality and accessibility of administrative data, including by supporting the development of integrated state database systems.

We appreciate this opportunity to inform the commission on the importance of the above issues.

#1 Promote evaluation requirements that are both rigorous and realistic

The evidence generated by third-party evaluations can provide critical insight on how best to allocate resources and develop policies in order to move our nation's workers and families to economic stability. To ensure that such evidence is available, evaluation must be both required by the funding entity and held to certain standards of rigor. For example, SPR has been privileged to evaluate five different programs funded by the US Department of Labor's Workforce Innovation Fund, a grant program which enabled states and local areas to pilot innovative approaches in workforce development. Grantees received larger amounts to scale and/or replicate evidence-based approaches and evaluate them using an experimental or quasi-experimental design, and smaller amounts to test new approaches using evaluation approaches that measure changes in participant outcomes, but do not assess whether the program caused these changes. This approach allows both the program and its evaluation to move the field forward, by centering the importance of conducting evaluation while accounting for the fact that the most rigorous evaluation designs are not always appropriate for the first attempt to learn about a particular service design.

Under the Workforce Innovation Fund, SPR has been able to conduct evaluations of promising approaches in workforce development—using a variety of methods appropriate to where each approach is situated in its development—to inform the rollout of service delivery under the new Workforce Innovation and Opportunity Act, which incorporates many approaches first tested under

the Workforce Innovation Fund. Simply put, encouraging innovation while requiring evaluation makes it easier to learn what works and for whom. This approach should be expanded to other agencies and to any new funding streams to come under the current administration.

#2: Improving the Quality and Accessibility of Administrative Data

One of the most essential parts of conducting high-quality evaluation to support policy development and refinement is being able to track evaluation participants in administrative data: for example, using Unemployment Insurance wage records to determine whether a job training program increased earnings or using arrest and conviction records to determine whether an offender reentry program reduced recidivism. In both cases, to determine whether an investment in a program was worthwhile, evaluators need access to high-quality, individual-level data from government agencies. SPR has collected employment, education and criminal justice data from state and local agencies across the country, and encountered wide variation both across and within states in how such data are standardized, stored, shared, and linked depending on the agency in question. Key issues encountered include:

- Inconsistent, but often lengthy and cumbersome, processes for accessing data. Each agency negotiates its own data sharing agreements, which can add up to significant time and cost for national studies that require data from multiple agencies in many states, particularly when there may be variations in exactly what the process requires and how long it takes.

- Differences in the collection and completeness of data across agencies. For example, data may be stored in different electronic formats or even in hard copy, and evaluators must therefore allocate time to merging, standardizing and even keying all of the data prior to analysis. Administrative data also do not always include or release the same variables, and this limits the extent to which analysis can identify what works for whom.

In addition to this experience accessing administrative data for evaluation, SPR has also been privileged to serve as the technical assistance provider for the Department of Labor's Workforce Data Quality Initiative (WDQI), which provided grants to states to develop longitudinal administrative databases in order to facilitate a more comprehensive understanding of workers' training, employment and earnings outcomes over the course of their careers. Longitudinal databases can also help state agencies understand system dynamics over time—how quickly, for example, training programs are developed and accessed relative to labor market shifts that require new training. Through our work with state agencies as a technical assistance provider, several key challenges have been made clear: the difficulty of tracking outcomes for individuals as they move across state lines, the need to navigate and adhere to multiple privacy regulations when linking data, and the need for improved data systems at the state level. WDQI has helped surface these issues and bring agencies together to consider how to address them, but further investment is needed to put these ideas into action and replicate successful approaches both across states and to other policy areas beyond workforce development and education.

Thank you for the opportunity to address the commission during this important time for evidence-based policymaking. Researchers, policymakers and program administrators have a growing common understanding of the need to do a better job of understanding what works and why, so we can invest public dollars wisely and do work that matters most.

Dr. Andrew Wiegand (*Ph.D., Social Psychology, University of California, Santa Cruz, M.P.P., University of California, Berkeley*) is the President and CEO of Social Policy Research Associates. In his nearly two decades of work at SPR, Dr. Wiegand has served as Project Director and/or Principal Investigator for more than 20 national evaluations, as well as multiple state and local evaluations A well-known expert on evaluations of workforce, education, and human services programs, particularly those focused on youth and justice-involved individuals, Dr. Wiegand has led or helped to lead national impact evaluations of the Pell Grant Experiments, the Reintegration of Ex-Offenders (RExO) Project, and YouthBuild, as well as multiple studies of programs funded under the Workforce Investment Act and its successor, the Workforce Innovation and Opportunity Act.

Other Public Input–Hearing Testimony

AMERICAN
EVALUATION
ASSOCIATION

DATE: August 24, 2016

TO: Katherine G. Abraham, Chair, Commission on Evidence-Based Policymaking
Ron Haskins, Co-Chair

SUBJECT: Testimony submission to the Commission on Evidence-Based Policymaking

THROUGH: Shelly Martinez, Executive Director for the Commission on Evidence-Based Policymaking

VIA EMAIL: rochelle.wilkie.martinez@census.gov

On behalf of the American Evaluation Association (AEA), we are writing in support of the Evidence-Based Policymaking Commission and to thank you for your efforts on such an important and challenging undertaking. AEA formally supported this legislation and worked with Congressional staff during its drafting to advance awareness and use of evaluation in government decision making. Both Congress and executive branch agencies have critical needs for credible assessments of the relevance, efficiency, and effectiveness of government programs, policies, and activities. AEA applauds the work of the Commission to help Congress embed evaluation into program design and to ensure that quality data are available for evaluation of federal programs.

AEA looks forward to addressing the specific questions and issues that arise during the Commission's deliberations. We are prepared to provide support and advice in any manner that best suits the needs of the Commission. This could include (1) in-person testimony during which AEA can engage in a dialogue with Commission Members, (2) suggestions about possible members for any evaluation-focused advisory committees, (3) interaction with various Commission subcommittees, and (4) additional, more detailed, documents.

At the outset of your work, and drawing on its collective extensive evaluation expertise and over 30 years of practical experience, AEA wishes to bring the following recommendations to your attention regarding a portion of the charges to the Commission:

Under section 4 (a), the Commission is charged with making "recommendations on how best to incorporate outcomes measurement, institutionalize randomized controlled trials, and rigorous impact analysis into program design."

We agree that program design should include an appropriate evaluation framework to guide data collection and use over the life of a program. Such early evaluation planning also enables the use of rigorous impact evaluation methods that require data collection prior to implementation, such as randomized control trials. However, the opportunity to capitalize on early successes or to make mid-course corrections is also critical, so it is essential also to conduct ongoing formative evaluation through the program's life cycle. For example, evaluation can address questions that arise during implementation of the program, such as the validity of assumptions that underlie program design, or challenges to implementation in the field. Early in the program's history, relatively simple information may be needed quickly (e.g., regarding obstacles to participation in the program). Evaluators should match the

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methodology to the stage of program development and to information needs, which may call for a range of methods over time, including targeted data collection that may not always include outcomes measurement. Thus, the optimal integration of outcomes measurement, randomized controlled trials, and rigorous impact analysis should include room for other methods as well.

Such a framework will also include several other components, including: (a) a sound procedure for establishing annual and multi-year evaluation agendas and timetables, (b) consultation with appropriate congressional committees, OMB, and other external program stakeholders on their information needs, (c) a dissemination plan, preferably with public access, (d) resources needed for evaluation, and (e) formal expectations regarding how the findings and conclusions of evaluations shall be considered in subsequent program design, program management, and decisions regarding program reform, expansion or termination.

Organizational structure and staffing are also important. Thus, we suggest it important to ensure independence of the evaluation function from program offices with regard to evaluation design, conduct, and reporting. Consultation is needed to ensure relevance, but independence is needed to ensure impartiality. Adequate staffing of evaluation units and support for professional development are also necessary if the Commission's work is to achieve the kind of benefits foreseen by Congress.

Under section 4 (b), the Commission is charged to 'consider whether a clearinghouse for program and survey data should be established and how to create such a clearinghouse.'

We encourage the Commission to engage in this important task while trying to avoid unintended negative side effects. While recognizing the value and importance of large-scale extant archives and datasets, they should not reduce the capacity to gather targeted data as needed to address program evaluation questions. Measures of a program's key processes and outcomes should be established while the program is being developed, and should be put into place by the time program implementation begins. The most relevant measures might not exist in an extant clearinghouse.

We also ask the Commission to consider whether the proposed clearinghouse could serve as a repository for evaluation reports, serving as an archive capacity for the collection, dissemination, and preservation of knowledge and lessons learned from evaluation studies. This would provide an enhanced base for guiding future program design and management, which often requires a critical mass of knowledge to properly comprehend and address the complexity of program processes and influences. It would also be a great benefit for future meta-analyses of evaluation findings.

The American Evaluation Association has been the professional organization devoted to the application and exploration of evaluation in all its forms since 1986. It now has 6,000 members across all 50 states, as well as 80 other countries. It has developed professional standards for the quality of studies and ethics for the multidisciplinary members of the field. AEA has created a community of learning and practice over the decades, in which its members in academia have worked to develop, refine and teach evaluation methods, while its members in practice have served the evaluation needs of agencies across the federal (as well as state and local) government. AEA developed the attached ***An Evaluation Roadmap for a More Effective Government*** (www.eval.org/d/do/472) to offer to improve evaluation and the use of study results in the federal government. This document defines "evaluation" and addresses management

requirements for ensuring evaluation quality and usefulness, including methods, human resources, budgets, independence, transparency, and professional ethics.

We look forward to a dialogue regarding Commission efforts and progress. If we can be of further assistance, or if you need more information about evaluation or our organization, please do not hesitate to call on us or to contact Dr. Cheryl Oros, our Senior Advisor for evaluation policy (EvaluationPolicy@eval.org; 202-367-1166).

Sincerely,

John Gargani, Ph.D.
President, American Evaluation Association

Kathryn Newcomer, Ph.D.
President-Elect, American Evaluation Association

Stewart Donaldson, Ph.D.
Past President, American Evaluation Association

Attachment: *An Evaluation Roadmap for a More Effective Government* (www.eval.org/d/do/472)

September 9, 2016

Dr. Katharine G. Abraham, Chair
Mr. Ron Haskins, Co-Chair
Commission on Evidence-Based Policymaking
U.S. Census Bureau
4600 Silver Hill Road
Suitland, MD 20746

Dear Chairwoman Abraham and Co-Chairman Haskins:

America Forward is writing to thank you both for your willingness to lead the important effort of the
newly established bipartisan Commission on Evidence-Based Policymaking. We were advocates of the
Evidence-Based Policymaking Commission Act when it was introduced by Speaker Ryan and Senator
Murray and supported efforts to ensure its passage given its alignment with our belief that in times of
greater demand for human and social services and tighter budgets, we must work together to direct
government resources to programs that work and that measurably improve people's lives. We would
like to offer our thoughts on the work before the Commission over the next 15 months and offer specific
insights and recommendations based on our Coalition's experiences for how to ensure the promise of
providing "the nation with guidance on ways to further expand our approaches to evidence-building in
government"[1] is realized.

America Forward is a nonpartisan effort to unite social innovators with policymakers and advance a
public policy agenda that fosters innovation, rewards results, catalyzes cross-sector partnerships, and
translates local impact into national change. At America Forward, we champion innovative, effective,
and efficient solutions that are helping to tackle our country's most pressing social problems. We do
this through a network of more than 70 social innovation organizations, the **America Forward Coalition**,
who are driving progress in areas such as education, workforce development, early learning, public
health, pay for success, and national service in more than 14,500 communities nationwide, touching the
lives of 8 million Americans each year. Our work is grounded in the real world, community-based
experiences of these organizations and those they serve. This grounding, we think, serves us extremely
well in not only identifying and championing policy solutions that will have real meaningful impact but
our ability to point to tangible examples of these solutions in action, and to real people who these
solutions have touched, sets us apart from other advocacy organizations.

Ensure Focus on Practice and On-the-Ground Implementation

The real promise for the Commission for us at America Forward is that the focus on bringing evidence
and greater attention to outcomes will not only be in service to the creation of better policies and
budgeting practices but that it will also serve to inform the improvement of existing federal programs,
service practice and delivery. Better policies and more effective allocation of resources only fixes a part
of the equation of having more evidence-based, government funded human and social services. The
way those services are delivered is equally important to ensuring that we are measurably improving the
lives of those who need to access these critical services at one point or another in their lives. Like our

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[1] http://www2.census.gov/about/linkage/meetings/2016-07-22/abraham-haskins.pdf

approach to policy advocacy—it is not just about a good policy, it is about how that policy works on the ground and how it impacts those the policy is meant to help.

As with many Congressionally created commissions, there is the risk that this Commission will fail to include this practical lens to its work. State and local level government leaders and service providers, who are collecting data, using data, and ultimately serving the individuals who are behind the data points we need to build the evidence base around, are where the real promise of the Commission lies. It would be prudent for the Commission to include in its outreach and information gathering individuals outside of the traditional academic and research communities as well as to include a focus on how to make data available to inform real world service program design, delivery, and indicators of impact.

It is in fact the complementary combination of classic academics, applied researchers, and program facilitators and service providers that will ensure that the work of this Commission is as robust and significant as its promise holds. We think it is imperative that all of these perspectives, from all levels—federal, state and local—as well as across issue areas, are included and that a well-rounded group of experts is a part of the discussion that leads to this important Commission's conclusions and recommendations.

Include Provider/Practitioner Perspectives on Data

America Forward Coalition members share a commitment to using data to track progress and ensure accountability. That is why we are particularly supportive of the focus of the Commission on developing a strategy for increasing the availability and use of data in order to build evidence about government programs. The availability and use of administrative data is of particular interest because, as we know from our members' experiences, it is extremely important for engaging in meaningful evaluations and for driving down the cost of randomized controlled trials.

In addition to availability and use of data, our Coalition members have identified other challenges associated with data in the context of building the evidence of what works. These challenges include:

1. Even if data are collected and available, **antiquated data systems** particularly in the public sector make it difficult to efficiently access or engage in analyses of the data to measure outcomes and determine impact.
2. The challenges that millions of Americans face every day cut cross agencies and sectors. Allowing specific **datasets to "speak to" each other** is an important consideration for the Commission to explore. In order to adequately measure results and assess impact, data access and utilization must reflect the interconnected nature of the problems faced by Americans and the solutions being developed by organizations like those in the America Forward Coalition.
3. The mobility of Americans can make it difficult to track outcomes absent a **state or national database** that can accessed and used for building evidence and strengthening efforts by providers and governments to be more evidence-based. All of this must be done with an assurance of privacy and confidentiality.
4. Given the long time focus on compliance with rules rather than achievement of outcomes, both the **service delivery and government workforce are not accustomed to working with data** for purposes of evidence determination.

Encourage Federal Agencies to Adopt Relevant Data-Driven Innovations with Evidence of Effectiveness Identified through Innovation Fund and Tiered Evidence Programs

Tiered evidence models and innovation funds have been authorized across different agencies and included in various issue areas to develop and build the evidence base of what works in education and social services. One example, the Social Innovation Fund (SIF), makes grants to experienced intermediary organizations that are well positioned within communities to identify innovative, evidence-based programs with potential for expansion in the areas of economic opportunity, healthy futures, and youth development. Since 2010, the SIF has made awards totaling $243 million with more than $528 million in private and non-federal matching funds. In total, more than 400 nonprofit organizations are being funded by the SIF to conduct diverse interventions and evaluate results through highly rigorous models.

One challenge facing innovations funds like SIF and tiered evidence programs such as the Investing in Innovation program (i3) at the Department of Education is identifying a pathway to integrating and expanding approaches determined to have evidence of effectiveness under this funds in a manner that aligns with existing federal efforts to address national and local challenges. In fact, despite the SIF's widespread success and the bi-partisan support of i3, many federal agencies are unaware of the innovations supported by these funding streams that could help improve existing programs, yielding better outcomes for vulnerable communities. As the Commission builds out its priorities and scope of work, our Coalition suggests that you encourage federal agencies to adopt relevant data-driven programs/strategies with evidence of effectiveness currently supported by the Social Innovation Fund, the Investing in Innovation Fund and other similar programs whose evaluations, data, and experience of partner organizations are of particular value to federal agencies tasked with providing effective services in the areas of economic opportunity, healthy futures, and youth development.

America Forward stands ready to work with this important Commission to ensure that the concepts of evidence and outcomes are being used to develop policies and fund interventions. We believe this should become common practice at the federal, state and local level to address the current and future challenges we face as a nation.

Thank you for your leadership of the Commission on Evidence-Based Policymaking and for your effort to strengthen the government's evidence-building efforts.

Sincerely,

Nicole Truhe
Government Affairs Director, America Forward
1400 Eye Street, NW Ste 400
Washington, DC 20004

To:	Commission on Evidence-Based Policymaking
From:	Laura and John Arnold Foundation
Date:	December 22, 2016
Re:	Docket ID USBC-2016-0003

Laura and John Arnold Foundation
Letter to the Commission on Evidence-Based Policymaking

Dear Commissioners,

As Vice Presidents of the Laura and John Arnold Foundation (LJAF) focused on improving evidence-based policymaking by federal, state, and local governments, we are submitting this letter in response to the Commission on Evidence-Based Policymaking's request for comments.

We believe the Commission's statutory charge from Congress presents a critical opportunity to reshape the way governments use data and evidence to improve citizens' well-being. By using modern technology and protocols that protect individual privacy, it is now possible to create a data infrastructure that enables government decision makers, as well as consumers and private sector organizations, to obtain reliable, actionable information that can drive their choices on how to use resources more effectively.

Governments in other countries such as Denmark, the Netherlands, the United Kingdom, and Estonia are embracing secure data-linkage techniques to help solve problems for their citizens. In the United States, where administrative data from social programs are scattered across programmatic silos in federal, state, and local governments, an optimal data infrastructure requires collaboration among multiple parties. We believe the government agencies that administer programs and thus "own" the associated administrative data should work with research data centers that have the existing infrastructure to link and analyze data while protecting individual privacy. Since the enactment of the Confidential Information Protection and Statistical Efficiency Act of 2002, federal statistical agencies and academic research data centers throughout the United States have demonstrated the ability to link and manage personally identifiable data for research purposes without breaches of privacy.

We recommend the Commission go beyond offering general recommendations for improving data infrastructure and the evaluation of government programs *as we know them today*. Instead, the Commission should seize the opportunity to call for a modernized data infrastructure that could lay the essential groundwork for transformational reforms in how governments plan, structure, manage, and evaluate programs to yield substantially higher returns on taxpayer investments.

Recommendations

In recent years, LJAF has supported collaborations between governments, researchers, and data scientists across the country in an effort to help to address numerous challenges at the federal, state and local levels. In the appendix, we highlight some of our most impactful projects involving partnerships between governments and universities to enhance evidence-based policymaking. Our projects serve as proof points that demonstrate ways that government programs can be improved through the use of data and evidence. We offer four overarching recommendations for how to strengthen government's evidence-building efforts:

1. **Develop and apply evidence-focused design principles to all government programs.** Congress and the administration should embed strategies *within* programs that will increase the share of resources that are allocated to evidence-based practices and to rigorous evaluation of promising approaches. Initial design principles can be drawn from existing evidence-based initiatives such as the Department of Education's Education Innovation Research program, pending legislation for Social Impact Partnerships, Performance Partnership Pilots for Disconnected Youth, and waiver demonstrations that require rigorous evaluations in welfare programs administered by the Administration on Children and Families and the Food and Nutrition Service. The principles should guide all new legislation, reauthorizations, regulatory reforms, and efforts to modernize agency administrative procedures.

2. **Set an expectation that state and local governments that administer federal programs should conduct ongoing data analysis and rigorous evaluation and require that they make their administrative data accessible to the federal government to facilitate research. Governments should use existing program funds for this purpose.** State and local governments are allocated hundreds of billions of dollars every year to administer federally funded programs and gather data on outcomes. Yet few have strong internal capacity for data analytics or evaluation, and many lack incentives to share their data for research and program improvement, which often requires a cumbersome process of negotiating agreements to link data across jurisdictional boundaries. The federal government should help state and local governments better measure their impact and administer their programs by creating the capacity to link data across jurisdictional silos and providing useful information to state and local governments. The federal government should also provide additional funding to facilitate data transfers. Such an approach would make it easier for academic institutions and innovative government structures to analyze the impact of new programs and policies on local populations.

3. **Create a network of government and research institutions that facilitates secure data linkages while protecting individual privacy.** To protect the privacy of individuals, there must be a secure and trusted network of access

points to potentially identifiable data. This infrastructure should be built upon the existing university-based Federal Statistical Research Data Centers and include modernized processes to speed approvals of projects that meet federally determined standards for accessing data. Together, these organizations can provide a highly secure data infrastructure to support important information needs of federal, state, and local governments, private sector organizations, and the public. Such a network can produce reliable published research and aggregated statistics to help governments and other decision makers understand the root causes of problems, direct services and benefits to where the needs are greatest, measure performance on important outcomes, and evaluate the impact of alternative strategies.

4. **Strengthen federal agency evaluation and management capacity.** Congress and the administration should collaborate to refine and expand the successful evaluation practices the Obama administration implemented in agencies such as the Department of Labor. In addition, the Paperwork Reduction Act (PRA) and the Government Performance and Results Modernization Act (GPRMA) should be evaluated to determine how to better help federal, state, and local government agencies gather and use information to improve outcomes for program beneficiaries. Future efforts to assess and rate particular programs—such as a new Program Assessment Rating Tool (PART)—should be guided by specific policy goals that cut across program labels. Review processes should be designed to identify strategies *within and across programs* that are most effective at achieving overarching policy goals and developing ways to scale those strategies.

The above recommendations address four core challenges that prevent government programs from realizing their full potential to improve lives:

1. **Fragmented federal program structures lack the flexibility and incentives to focus state and local resources on improving outcomes.** Today, vulnerable populations are served by multiple programs run by different federal departments and state and local agencies, each with its own bureaucratic apparatus focused on a particular set of activities. Local governments and providers that deliver services lack the flexibility to combine funds and design coordinated interventions that will achieve the best outcomes per dollar spent. Only a handful of federal programs launched during the Obama administration—such as tiered evidence grants[i] and Pay for Success initiatives—create strong financial incentives for grantees to use existing evidence of what works and participate in rigorous evaluations to build new knowledge.

2. **The federal government has poorly communicated the role of data analysis and evaluation in program implementation.** There is a widespread perception across government programs and among grantees that data analysis and evaluation are not core elements of effective program

administration, and little or no program funding is allocated for these purposes. Government has not signaled to grantees that they should integrate data analysis and evaluation into their operations in order to test, learn about, and improve the impact of strategies, nor that they should use a portion of their program funds for this purpose if other funding is not available. State and local governments that seek to test, learn, and improve their public impact are stymied when the people they serve move across jurisdictional lines or when the agencies that serve them in one location lack the necessary relationships to share information. Instead of using reliable data that government already collects to address this problem, each federal grant program sets its own reporting requirements to ensure accountability. However, this reporting, which is often onerous and time-intensive for grantees, rarely generates information that is useful for helping grantees or government program managers improve their programs. Rather, this approach to accountability undermines grantees' confidence in the ability of the federal government to help with data analysis and evaluation.

3. **Lack of secure access to high-quality and high-coverage data makes it difficult or impossible to measure progress and evaluate impact.** Authoritative sources at various levels, including both governmental and private-sector sources, hold certain data that would be useful to government managers and grantees. However, this data is highly dispersed across sectors and levels of government. Examples include receipt of public benefits, earnings, healthcare usage, criminal justice involvement, and educational attainment—many of the key outcomes that public policies aim to improve. As people move between states and systems, it is extremely difficult to negotiate among all the data "owners" who must cooperate in order to build a complete picture of the individuals served by various systems. In the instances where the federal government currently holds this kind of unified data on outcomes, there is little capacity to provide streamlined access to governments and researchers. Meanwhile, state and local data owners apply inconsistent protections to safeguard the privacy of individuals in their systems.

4. **Federal agencies lack the internal processes for assessing the impact of their programs and directing funds to use and build evidence.** For the most part, agencies lack the internal structures and routines to unite the management of programs with the evaluation of strategies implemented within programs. Over time, the share of resources allocated to strategies proven to be effective through rigorous research—or to efforts to consciously build evidence on promising approaches—has remained troublingly low. Public outcomes have suffered. Impediments to learning and improvement are sometimes embedded in law. For example, the PRA and GPRMA have created burdensome compliance processes that divert resources from valuable activities. Past efforts, such as the PART, have been overly focused on the performance of individual programs rather than the improvement of public outcomes through strategies that cut across programs.

The attached document, "Detailed Recommendations from the Laura and John Arnold Foundation for Improving Government's Capacity to Use and Build Evidence," provides specific recommendations around each of these four challenges that are informed by our collective experience and the knowledge we have gained through our network of grantees. We would be happy to provide any additional information upon request.

Sincerely,

Kathy Stack, Vice President of Evidence-Based Innovation

Jon Baron, Vice President of Evidence-Based Policy

Josh McGee, Vice President of Public Accountability

Stuart Buck, Vice President of Research Integrity

Appendix: Detailed Recommendations from the Laura and John Arnold Foundation for Improving Government's Capacity to Build and Use Evidence

Attachment: Proposed Social Spending Innovation Research (SSIR) Initiative: Harnessing American Entrepreneurial Talent to Solve Major U.S. Social Problems

Appendix

Detailed Recommendations from the Laura and John Arnold Foundation for Improving Government's Capacity to Build and Use Evidence

This document builds upon the recommendations in the Laura and John Arnold Foundation's (LJAF's) December 22, 2016 letter to the Commission on Evidence-Based Policymaking. Under each of our recommendations, we provide examples of projects supported by our grantees or activities we carry out directly that serve as proof points that government programs can be transformed to generate higher value for taxpayers through use of data and evidence. These examples, which we consider building blocks for a future evidence infrastructure, have informed our detailed recommendations.

1. **Develop and apply evidence-focused design principles to all government programs.**

During the Obama administration, a number of significant outcomes-focused, evidence-based program initiatives were launched that created strong financial incentives for grantees and providers to use existing evidence of what works and to participate in rigorous evaluations to build new knowledge. These included tiered evidence grants (*e.g.,* the Department of Education's Investing in Innovation Fund and the Department of Health and Human Services' Home Visiting program), Pay for Success pilots, Performance Partnership Pilots for Disconnected Youth, and waiver demonstrations in welfare programs.

LJAF is committed to helping policymakers and researchers refine these models and expand their use in order to improve government effectiveness. As examples of this work, members of the foundation are having discussions with stakeholders about how to enhance the impact and cost-effectiveness of evidence-based program initiatives by using the following approaches:

- *Adopting a standard approach to tiered evidence grantmaking in social programs modeled on the successful Small Business Innovation Research (SBIR) program.* The attachment to this appendix is a short concept paper that outlines our proposed approach and provides a template that could be used to apply the approach across a range of social spending programs. This program model was developed for federal competitive grants with a matching requirement to incentivize state and local governments to use funds they control (including federal formula funds) for evidence-based approaches. A similar model could be used by state governments to allocate funds to localities and other grantees.

- *Increasing the use of low-cost randomized controlled trials (RCTs).* Low-cost RCTs are a powerful new tool for building scientific evidence about "what

works" to address major social problems. Well-conducted RCTs are widely regarded as the most credible method of evaluating whether an intervention model is effective, but they are often assumed to be too expensive and burdensome for practical use in most areas. However, researchers have recently shown that in many instances, high-quality RCTs can be conducted at a low cost and minimal burden, addressing a key obstacle to their widespread use. The low cost is achieved by:

- Embedding random assignment in initiatives that are already being implemented as part of usual program operations. RCTs can be embedded in many new or ongoing programs, for example, by using a lottery process (*i.e.,* random assignment) to determine who among those eligible will be offered a particular service model (since available funds are often insufficient to serve everyone who qualifies).
- Measuring key study outcomes with administrative data that are already collected for other purposes (*e.g.,* student test scores on state exams, criminal arrest records, and health care expenditures), rather than engaging in original—and often expensive—data collection through interviews or testing.

Such studies make it possible now as never before for policy officials to use scientific evidence about what works to increase government effectiveness. LJAF is funding numerous low-cost RCTs (costing between $50,000 and $300,000) that have large samples, strong designs, long-term follow-up, and outcome measures of self-evident policy importance. For examples, see: http://www.arnoldfoundation.org/wp-content/uploads/Request-for-Proposals-Low-Cost-RCT-Competition-FINAL-9.30.16.pdf.
The U.S. Department of Education and National Institutes of Health have also recently launched low-cost RCT funding initiatives.

We believe the Commission's recommendations should include program design principles for social programs that aim to increase the share of resources that are allocated to evidence-based practices over time. If the incoming administration adopts a diagnostic tool such as the Program Assessment Rating Tool (PART) to assess program effectiveness, the tool should also assess a program's capacity to use and build evidence about what works. The following program design principles should guide all new legislation, reauthorizations, regulatory reforms, and agency administrative practices:

- *Focus on outcomes.* Define the primary and secondary outcomes that programs will be accountable for achieving. Avoid prescriptive requirements for how those outcomes should be achieved.
- *Use and build rigorous evidence.* Ensure that programs have requirements and incentives for decision makers at every level of a program to:

- o Use existing evidence about what is likely to work best to improve outcomes for program participants;
- o Build new evidence using rigorous and cost-effective research methods about what works best for different populations in different contexts;
- o Adopt consistently high standards for what constitutes rigorous evaluation; and
- o Enable measurement and evaluation of long-term outcomes after participants are no longer receiving services, with a focus on outcomes related to education, employment, criminal justice involvement, and health.

- *Encourage innovation.* Reward entrepreneurial innovation, provided there is rigorous testing and learning about which strategies are most effective.
- *Leverage state and local funds.* Require or incentivize state and local governments to allocate an increasing share of the funding they control (including federal formula funds) to scale-up evidence-based practices.
- *Consolidate programs while targeting services.* Reduce the number of programs that are serving similar populations by combining funding streams so that program administrators and practitioners have greater flexibility to deliver the best mix of services using the most effective strategies. Any restructuring should include strong safeguards to ensure that services and benefits are targeted to vulnerable populations most in need.
- *Improve use of high-quality data.* Maximize production of, access to, and use of high-quality data. Limit reporting to those data elements that are most important for assessing progress, measuring outcomes, and evaluating impact. Wherever possible, enable state and local governments and service providers to measure progress and evaluate results by linking participant data to reliable administrative and survey data held by third parties in secure data facilities.

2. Set an expectation that state and local governments that administer federal programs should conduct ongoing data analysis and rigorous evaluation and require that they make their administrative data accessible to the federal government to facilitate research. Governments should use existing program funds for this purpose.

State and local governments administer hundreds of billions of dollars of social program funding every year, most of which is provided by the federal government. Through partnerships with strong researchers, state and local governments can use data, evidence, and innovative experimentation to learn what works and improve program delivery. LJAF-funded projects that demonstrate the types of activities that federal dollars could support include the following:

- Established in 2015, the Rhode Island Innovative Policy Lab (RIIPL) at Brown University built a linked longitudinal database from Rhode Island's government agencies and private vendors. Researchers are using this

database to inform real-time policy decisions, educate policymakers in their pursuit of improving economic and social outcomes, and increase the supply of experimentation and rigorous evaluation in Rhode Island. RIIPL is currently working with seven agencies on 17 projects that span areas such as juvenile recidivism; foster care; supplemental nutritional assistance; Medicaid; maternal, infant, and early childhood home visitation; labor training; debt-related incarceration; tax incentives; the Earned Income Tax Credit; and policing.

- The Government Performance Lab at the Harvard Kennedy School of Government (GPL) has been working in jurisdictions across the country to facilitate Pay for Success projects, results-driven contracting, and performance improvement activities. A complete list of projects is available here: http://govlab.hks.harvard.edu/our-projects.
- The Abdul Latif Jameel Poverty Action Lab at the Massachusetts Institute of Technology (J-PAL), through its State and Local Innovation Initiative, is supporting randomized policy evaluations at the state level in Pennsylvania and South Carolina, at the city level in Philadelphia and Rochester, N.Y., and at the territory level in Puerto Rico. These evaluations aim to address significant social problems facing state and local leaders. For example, these evaluations examine approaches to increase employment and economic mobility and to find more effective treatments for substance use disorders.

The projects described above have demonstrated cost-effective ways for state and local governments to partner with research institutions to solve important problems that could be carried out on a larger scale without legislative change. We believe the Commission should recommend that federal agencies take administrative actions that:

- *Set clear expectations for state and local grantees regarding data analysis and evaluation.* The Office of Management and Budget (OMB) and federal agencies should clarify that state and local grantees (1) are expected to analyze data and evaluate the impact of their program strategies using rigorous methods; (2) are encouraged to partner with strong researchers in academia to carry out these activities; and (3) are allowed to use programmatic funds for these purposes.
- *Ensure accessibility of grantee data.* The federal government should require that states and localities make key data needed to measure progress and outcomes accessible to the federal government for research purposes. The federal government should collaborate with states and localities to develop standard language for procurements that require contractors to make data accessible to state and local governments for program analysis and to the federal government for research purposes.

When legislative barriers prevent federal agencies from implementing these policies through administrative action, Congress should remove the barriers through legislation.

The LJAF-funded projects described above rely on high-quality administrative data to conduct rigorous low-cost evaluations. However, these projects are limited by their lack of access to national datasets, which would allow them to measure outcomes for participants who move across state lines.

To facilitate the development of similar high-value projects, and to improve projects like these, the federal government should require that state and local data generated for the administration of federally funded programs be accessible for research purposes. Once the data from local and state programs is linked with federally held data, useful information can be provided to state and local governments in ways that will greatly enhance what these governments can learn about their programs.

To be scalable and sustainable, partnerships like those described above, or other efforts to improve the research capacity of governments, should not rely entirely on philanthropic funding. Instead, government should recognize the value of such efforts and provide financial support. The federal government could spur this shift by clarifying that (1) state and local governments that administer federal programs are *expected* to analyze data and conduct evaluations to improve program impact and (2) programmatic funds may be used to finance data infrastructure and evaluation activities. To avoid placing a burden on states and localities without providing commensurate resources, the federal government should provide additional funding for data sharing activities.

3. Create a network of government and research institutions that facilitate secure linkage of data while protecting individual privacy. LJAF supports a number of projects with research institutions that are pioneering innovative strategies for linking personally identifiable information while protecting privacy. Most of these projects benefit state and local governments that are seeking to link data across programs or levels of government in order to answer important policy questions.

- Actionable Intelligence for Social Policy (AISP) is an initiative that focuses on the development, use, and innovation of integrated data systems (IDS) for policy analysis and program evaluation. The goal is to make it easier for state and local governments to establish and evaluate effective programs by linking privacy-protected data across agencies and standardizing IDS practices. In 2009, AISP formed a network of county agencies, city agencies, state agencies, and universities around the country to address the lack of national standards for IDS. The AISP network now has 13 sites that engage in multi-site research projects and share best practices for maintaining and developing an IDS.

- In the summer of 2016, LJAF provided support to Chapin Hall at the University of Chicago to release an RFP titled "Using Linked Data to Advance Evidence-Based Policymaking," which solicited research projects that could benefit from securely linking state or local-level data with federal data held at the U.S. Census Bureau. The data linking services offered by Chapin Hall could support a range of analyses including impact evaluations, long-term follow-up studies of prior RCTs, outcome measurement studies, needs assessments and descriptive studies, and multi-generation studies. The projects identified through the RFP include a long-term follow up of welfare demonstration projects in the 1990s, an evaluation of a higher education student aid program, and an analysis of the effect of birth weight and perinatal services on a population in California. None of these projects could have been accomplished using un-linked federal or state data alone.
- LJAF provided a planning grant to the Virginia Tech Social and Decision Analytics Lab (SDAL) to develop a strategy to increase the use of data analytics to answer pressing policy problems in small- and medium-sized jurisdictions around the country. The grant resulted in a plan to use the national land-grant university system, which is comprised of research universities with a public service-based mission, and the associated Cooperative Extension Service, which has a presence in most counties across the country, to bring together local policymakers and researchers supported by the analytics capacity at the university. The collaboration will allow different state university systems to focus on different issues. For example, land grant universities in Virginia may develop analytic capacity around youth development and opioid use and their counterparts in Iowa may focus on early childhood development. All of those topics require linking data across agencies and levels of government to measure relevant outcomes.

In addition to these grant projects, LJAF staff are investigating new privacy-preserving technologies employed in the United States and other countries. A number of modern cryptographic and statistical techniques are making it possible for researchers to study and learn from data while preserving privacy for individual records. Indeed, a relatively recent development known as secure multi-party computation allows two sources of data to be merged and analyzed while remaining completely encrypted the entire time so that even the researchers themselves never see an individual's data.

In 2015, researchers in Estonia engaged in a large demonstration project in which they matched 500,000 education records with 10 million tax records to study whether working during college increased the risk that students would fail to graduate on time. Thanks to secure multi-party computation, both the tax and education datasets remained cryptographically secure throughout the analysis, thus allowing the research to take place even though sharing tax data was otherwise illegal under Estonian law. In the United States, secure multi-party computation has been

largely confined to defense and intelligence applications funded by DARPA, but could prove transformational if extended to other government programs' data.

We believe the Commission recommendations should include:

- *Create an intergovernmental network of data hubs.* The U.S. Census Bureau should become a central hub in a federated network of state and local governments and other research entities that hold high-value data. The U.S. Census Bureau should lead efforts to develop common standards and protocols for managing and linking data in ways that protect privacy and produce rigorous statistical and evaluation products.

- *Harness new privacy-preserving technologies.* Standards and protocols for data-linkage should be updated periodically to take advantage of evolving technology such as secure multi-party computing, which safeguards the privacy and security of data during analysis.

- *Finance data-linkage and analysis.* The federal government should create permanent, predictable funding for data-linkage and analysis activities carried out by federal statistical agencies and research data centers. Legislation and administrative procedures should clarify that a portion of these costs can be paid from appropriations for the agency programs that are benefiting from the data analysis.

4. Strengthen federal agency evaluation and management capacity. A number of federal agencies have made significant advances in evaluation capacity in recent years, setting examples that are highlighted by Results for America's [What Works Index], the [Evidence-Based Policymaking Collaborative], and Andy Feldman's [GovInnovator] podcast. These successful efforts pave the way for the next administration to refine these approaches and expand them at other agencies. In addition, there are other opportunities to tackle issues that the Obama administration has not adequately addressed. We believe the Commission recommendations should include:

- *Encourage coordinated agency learning agendas.* Agencies should implement learning agendas in coordination with other actors pursuing knowledge on the same subject. For example, learning agendas and evaluation strategies can be enhanced through collaboration with philanthropies and academic researchers. Coordinating investments on shared priorities will ensure that separate studies build toward common, policy-relevant aims. Maximizing access to and use of administrative data to produce high quality studies at low cost is a key component of widespread learning.

- *Create Chief Evaluation Officers across federal agencies.* Federal agencies should establish or designate Chief Evaluation Officers to lead the

development of learning agendas reflecting important research questions and to help agencies improve their effectiveness. Evaluation activities can be financed through line-item appropriations or through set-asides, such as those at the Department of Labor. Agencies should adopt and continually update rigorous standards for their research and evaluation activities, taking into account the findings of the National Academy of Sciences Workshop on "Principles and Practices for Federal Program Evaluation."

- *Promote purposeful testing of ways to increase savings and cost-effectiveness.* Federal agencies, as well as state and local partners, can improve their return on investment by evaluating strategies designed to generate savings and cut unnecessary costs. This process should include evaluations that identify what activities can be stopped or streamlined without diminishing program impact.

- *Create interagency working groups on cross-cutting evaluation issues.* Federal agencies that operate similar programs, such as regulatory enforcement and federal credit programs, should collaborate to develop evaluation strategies and tools that can benefit multiple agencies. These working groups should collaborate with outside researchers and philanthropy to leverage non-governmental expertise and funding to conduct evaluations.

- *Strengthen human capital for evaluation activities.* Agencies should strengthen their internal evaluation expertise through training of federal executives and staff. For example, the United Kingdom has developed competency standards related to evidence and evaluation that senior officials are expected to meet, and outside organizations such as Nesta offer training based on those standards. Federal agencies should create more opportunities for highly qualified researchers to work inside government to help agencies design and conduct evaluations, and clean and produce data sets that can be reused to answer multiple questions. To accomplish this, the administration should consider establishing an Evidence-Based Policy Fellows program to recruit top researchers to work at agencies for one or two years on high-priority research projects.

- *Reevaluate the Government Performance and Results Modernization Act (GPRMA).* In its current form, Government Performance and Results Modernization Act (GPRMA) creates a significant reporting burden for federal agencies without generating reliable and meaningful information to evaluate and improve programs. To meet federal accountability requirements for specific programs, state and local governments and non-profit grantees devote substantial resources to reporting data of dubious quality on inputs, outputs, and processes without receiving useful information in return. GPRMA should be reevaluated to minimize unnecessary reporting by agencies and grantees and to maximize the use of high-quality administrative data, leveraging new capacities to link data across programs. GPRMA should make state and local

governments central partners in helping to develop streamlined accountability systems focused on outcomes, which can help all levels of government produce useful data for performance measurement and rigorous program evaluation.

- *Integrate performance management and evaluation activities to generate reliable, actionable information.* In too many federal agencies, including OMB, performance management and evaluation activities are poorly coordinated. This creates confusion for senior agency officials and program managers who need useful information about what is working and what should be improved or stopped. OMB should improve its internal coordination of these functions and call upon agencies to focus performance management activities on improving data quality and access; using rigorous evaluation to learn what strategies are most effective within and across programs; and fine-tuning performance metrics to ensure they are correlated with programmatic impact. In recent years, the Department of Labor has been an exemplar of this approach. The President's management agenda, which might include an updated Program Assessment Rating Tool, could set standards that encourage better coordination of these functions.

- *Implement data-use agreements that allow long-term follow-up studies.* Currently, most data-use agreements for federal evaluations do not provide an option to re-use the data for long-term follow-up studies after the initial evaluation ends. This makes it very difficult to learn about long-term impacts of government policies. Federal agencies should update their standard data-use agreements to facilitate long-term follow-up studies. Federal agencies should further standardize any individual consent forms such that study subjects are routinely asked to consent to the preservation and sharing of data (*e.g.,* test scores) for future research purposes, rather than be limited only to one particular purpose or particular set of researchers.

- *Update the Paperwork Reduction Act (PRA).* OMB's clearance requirements under the Paperwork Reduction Act (PRA) create long delays and bottlenecks for agencies seeking approval of evaluations and have stymied efforts by agencies to increase the number of high-quality studies of important research questions. Congress and OMB should work to identify ways to streamline the PRA approval process for evaluations when agencies have other means to ensure evaluation studies use rigorous designs, address important questions, and minimize burden on the public by using administrative and survey data when feasible.

- *Research clearinghouses and other resources on evidence-based practices.* Congress and the administration should expand federal research clearinghouses and their capacity to deliver information in user-friendly ways that help state and local decision makers learn which strategies are most likely

to be effective for different communities. To improve transparency and reproducibility of research and evaluation findings, clearinghouses should adopt standards requiring researchers to preregister studies and make the underlying data available, in de-identified form, to other researchers.

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[i] *Tiered Evidence Grants: Opportunities Exist to Share Lessons from Early Implementation and Inform Future Federal Efforts*, Government Accountability Office, GAO-16-818, September 2016.

Proposed Social Spending Innovation Research (SSIR) Initiative:
Harnessing American Entrepreneurial Talent to Solve Major U.S. Social Problems

The SSIR proposal seeks to replicate, in social spending, the great success of the Small Business Innovation Research (SBIR) program in technology development.

▪ **The SBIR program funds technology development by entrepreneurial small companies.** Under SBIR, created by Congress in 1982, 11 federal agencies allocate a small percentage of their annual research and development (R&D) budgets, for funding awards to small companies to develop and test innovative new technologies. The goal is to reach beyond the usual federal R&D grantees (*e.g.*, universities, large defense contractors) to fund a new set of entrepreneurs. The program has spawned breakthrough technologies in diverse areas such as computer chip production, commercial satellite communications, and medical imaging; and has received consistently favorable reviews in assessments by the National Academy of Sciences[1] and Government Accountability Office.[2] Congress reauthorized and expanded SBIR with overwhelming bipartisan support in 1992, 2000, and 2011. It is now funded at over $2 billion per year.

▪ **The proposed initiative, SSIR, would apply the successful SBIR approach in a different (non-technology) field—social spending—as discussed below.** A version of SSIR, focused on K-12 education, was recently enacted into law as part of the Every Student Succeeds Act of 2015—see attachment, sponsored by Senators Orrin Hatch (R-UT), and Michael Bennet (D-CO). The concept is also a key recommendation of House Speaker Paul Ryan's recent blueprint for addressing poverty, opportunity, and economic mobility.[3]

U.S. social spending critically needs an SBIR-like infusion of entrepreneurial new ideas and rigorous testing, because:

▪ **Many activities/strategies ("interventions") funded by government social programs are found to produce weak or no positive effects when rigorously evaluated.** When evaluated in rigorous randomized controlled trials, social interventions in K-12 education, employment and training, crime prevention, and other areas are too often found ineffective or marginally effective. Interventions that produce sizable effects on important life outcomes do exist, as discussed below, but tend to be the exception. This pattern occurs not just in social spending, but in other fields where rigorous evaluations are conducted, such as medicine and business.[4]

▪ **Meanwhile, the United States has failed to make significant progress in key areas such as:**

  – **Poverty:** The U.S. poverty rate now stands at 13.5%, and has shown little overall change (whether by official or alternative National Academy measures) since the late 1970s.[5]

  – **K-12 education:** Reading and math achievement of 17-year-olds—the end product of our K-12 education system—is virtually unchanged over the past 40 years, according to official measures,[6] despite a 90% increase in public spending per student (adjusted for inflation).[7]

  – **Well-being of low to moderate income Americans:** The average yearly income of the bottom 40% of U.S. households, now at $22,500, has changed little since the 1970s.[8]

▪ **Yet, entrepreneurs in the research, nonprofit, and for-profit sectors have developed a few interventions found highly effective in rigorous testing, illustrating what is possible.** Examples, evaluated in well-conducted randomized controlled trials, include:

- **Nurse-Family Partnership** – a nurse visitation program for low-income, first-time mothers during pregnancy and children's infancy (reduced child abuse/neglect and injuries by 20-50% over 2-15 years, compared to the control group).

- **Per Scholas Job Training** – a program for low-income, low-skilled workers that provides training in information technology (2½ years after program entry, increased workers' earnings by 31%, or $5,200 per year, compared to the control group).

- **New York City's Small Schools of Choice** – small public high schools created citywide in mostly high-poverty communities to replace large, low-performing high schools (4 years later, produced a 6-10 percentage point increase in the four-year high school graduation rate, versus the control group).

- **Such examples are rare because federal social spending has no systematic mechanism—analogous to SBIR—to fund and test innovative field-initiated ideas.** Federal agency evaluation funds generally focus on programs selected for testing by Congress or the agency, rather than initiated by entrepreneurs in the field. Agency research funding—such as that of the Institute of Education Sciences and National Institutes of Health—supports field-initiated ideas but is primarily focused on academic researchers and rarely funds entrepreneurial practitioners in nonprofit, for-profit, and state/local government organizations.

SSIR would use a streamlined, three-phase process—modeled on SBIR—to fund the development and rigorous testing of innovative social interventions. Specifically:

- **SSIR programs would be established at federal agencies using *existing* federal funds**. For example, Congress could direct federal agencies to restructure their existing discretionary social programs to incorporate the SSIR grantmaking process outlined below. Alternatively, as in SBIR, Congress could direct each agency to allocate a small percentage of its discretionary social spending (*e.g.*, 0.5%) to fund a new SSIR program at that agency.

- **Each agency SSIR program would focus on a broad area (*e.g.*, job training, crime prevention, health care delivery), and award grants through a competitive process.** Applicants could include nonprofit, for-profit, research, or state/local government organizations, with a priority for organizations that obtain a partial match of funds from other sources to help ensure the project's sustainability. Grants would include:

  - **Early-phase grants (*e.g.*, $50,000-$300,000) to fund the development and feasibility testing of an intervention which has promising prior research**, for the purpose of determining whether the intervention can be successfully implemented in real-world settings (*e.g.*, public schools, unemployment insurance offices, community health clinics);

  - **Mid-phase grants (*e.g.*, $0.5-3.0 million) to fund implementation and a rigorous evaluation of an intervention that has been successfully implemented under an early-phase grant** (or other effort meeting similar criteria), for the purpose of measuring the intervention's impact on important outcomes, such as employment and earnings, high school graduation, criminal arrests, or health; and

  - **Expansion grants (*e.g.*, $3-7 million) to fund implementation and a rigorous replication evaluation of an intervention found to produce sizable, important impacts under a mid-phase grant** (or other effort meeting similar criteria), for the purposes of delivering the intervention on a larger scale and determining whether its sizable impacts can be successfully reproduced and sustained over time.

Conclusion: Modeled on the successful SBIR program, the proposed initiative—SSIR—would infuse U.S. social spending with a critically-needed supply of entrepreneurial new ideas, shown in rigorous testing to produce important improvements in people's lives.

APPENDIX

SEC. 4611. GRANTS FOR EDUCATION INNOVATION AND RESEARCH

(a) PROGRAM AUTHORIZED—

(1) IN GENERAL: From funds reserved under section 4601(b)(2)(A),[1] the Secretary shall make grants to eligible entities to enable the eligible entities to—

(A) create, develop, implement, replicate, or take to scale entrepreneurial, evidence-based, field-initiated innovations to improve student achievement and attainment for high-need students; and

(B) rigorously evaluate such innovations, in accordance with subsection (di).

(2) DESCRIPTION OF GRANTS: The grants described in paragraph (1) shall include—

(A) early-phase grants to fund the development, implementation, and feasibility testing of a program, which prior research suggests has promise, for the purpose of determining whether the program can successfully improve student achievement or attainment for high-need students;

(B) mid-phase grants to fund implementation and a rigorous evaluation of a program that has been successfully implemented under an early-phase grant described in subparagraph (A) or other effort meeting similar criteria, for the purpose of measuring the program's impact and cost effectiveness, if possible using existing administrative data; and

(C) expansion grants to fund implementation and a rigorous replication evaluation of a program that has been found to produce sizable, important impacts under a mid-phase grant described in subparagraph (B) or other effort meeting similar criteria, for the purposes of—

(i) determining whether such impacts can be successfully reproduced and sustained over time; and

(ii) identifying the conditions in which the program is most effective.

(b) ELIGIBLE ENTITY—In this subpart, the term "eligible entity" means any of the following:

(1) a local educational agency;
(2) a State educational agency;
(3) the Bureau of Indian Education;
(4) a consortium of State educational agencies or local educational agencies;
(5) a nonprofit organization;
(6) a State educational agency, a local educational agency, a consortium described in paragraph (4), or the Bureau of Indian Education, in partnership with—
(A) a nonprofit organization;
(B) a business;
(C) an educational service agency; or
(D) an institution of higher education.

(c) RURAL AREAS—

(1) IN GENERAL: In awarding grants under subsection (a), the Secretary shall ensure that not less than 25 percent of the funds made available for any fiscal year are awarded for programs that meet both of the following requirements:

(A) The grantee is—

(i) a local educational agency with an urban-centric district locale code of 32, 33, 41, 42, or 43, as determined by the Secretary;

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[1] This is $70.5 million in FY 2017-18 and $90.6 million in FY 2019-20.

(ii) a consortium of such local educational agencies;

(iii) an educational service agency or a nonprofit organization in partnership with such a local educational agency; or

(iv) a grantee described in clause (i) or (ii) in partnership with a State educational agency.

(B) A majority of the schools to be served by the program are designated with a locale code of 32, 33, 41, 42, or 43, or a combination of such codes, as determined by the Secretary.

(2) EXCEPTION: Notwithstanding paragraph (1), the Secretary shall reduce the amount of funds made available under such paragraph if the Secretary does not receive a sufficient number of applications of sufficient quality.

(d) MATCHING FUNDS—In order to receive a grant under subsection (a), an eligible entity shall demonstrate that the eligible entity will provide matching funds, in cash or through in-kind contributions, from Federal, State, local, or private sources in an amount equal to 10 percent of the funds provided under such grant, except that the Secretary may waive the matching funds requirement, on a case-by-case basis, upon a showing of exceptional circumstances, such as:

(1) the difficulty of raising matching funds for a program to serve a rural area;

(2) the difficulty of raising matching funds in areas with a concentration of local educational agencies or schools with a high percentage of students aged 5 through 17—

(A) who are in poverty, as counted in the most recent census data approved by the Secretary;

(B) who are eligible for a free or reduced price lunch under the Richard B. Russell National School Lunch Act (42 U.S.C. 1751 et seq.);

(C) whose families receive assistance under the State program funded under part A of title IV of the Social Security Act (42 U.S.C. 601 et seq.); or

(D) who are eligible to receive medical assistance under the Medicaid program; and

(3) the difficulty of raising funds on tribal land.

(di)   EVALUATION—Each recipient of a grant under this section shall conduct an independent evaluation of the effectiveness of the program carried out under such grant.

(dii)   TECHNICAL ASSISTANCE—The Secretary may reserve not more than 5 percent of the funds appropriated under section 4601(b)(2)(A) for each fiscal year to:

(1) provide technical assistance for eligibility entities, which may include pre-application workshops, web-based seminars, and evaluation support; and

(2) to disseminate best practices.

References

[1] *An Assessment of the Small Business Innovation Research Program*, Charles W. Wessner, Editor, Committee on Capitalizing on Science, Technology, and Innovation, National Research Council, National Academies, 2008.

[2] The Government Accountability Office has conducted numerous review of SBIR since the program's establishment in 1982, the results of which are summarized in *Federal Research: Observations on the Small Business Innovation Research Program*, Government Accountability Office, GAO-05-861T, June 2005.

[3] *A Better Way: Our Vision for a Confident America – Poverty, Opportunity, and Upward Mobility*, recommendation to "Incorporate Tiered-Funding Structures to Build Evidence," abetterway.speaker.gov, June 7, 2016, p. 20.

[4]Illustrative examples include:

- Education: Of the 90 interventions evaluated in randomized controlled trials (RCTs) commissioned by the Institute of Education Sciences (IES) since 2002, approximately 90% were found to have weak or no positive effects. (Coalition for Evidence-Based Policy, *Randomized Controlled Trials Commissioned by the Institute of Education Sciences Since 2002: How Many Found Positive Versus Weak or No Effects*, July 2013, linked here.)

- Employment/training: In Department of Labor-commissioned RCTs that have reported results since 1992, about 75% of tested interventions were found to have found weak or no positive effects. (This is based on a count of results from the Department of Labor RCTs that have reported results since 1992, as identified through the Department's research database, linked here.)

- Medicine: Reviews have found that 50-80% of positive results in initial clinical studies are overturned in subsequent, more definitive RCTs. (John P. A. Ioannidis, "Contradicted and Initially Stronger Effects in Highly Cited Clinical Research," *Journal of the American Medical Association*, vol. 294, no. 2, July 13, 2005, pp. 218-228. Mohammad I. Zia, Lillian L. Siu, Greg R. Pond, and Eric X. Chen, "Comparison of Outcomes of Phase II Studies and Subsequent Randomized Control Studies Using Identical Chemotherapeutic Regimens," *Journal of Clinical Oncology*, vol. 23, no. 28, October 1, 2005, pp. 6982-6991. John K. Chan et. al., "Analysis of Phase II Studies on Targeted Agents and Subsequent Phase III Trials: What Are the Predictors for Success," *Journal of Clinical Oncology*, vol. 26, no. 9, March 20, 2008. Michael L. Maitland, Christine Hudoba, Kelly L. Snider, and Mark J. Ratain, "Analysis of the Yield of Phase II Combination Therapy Trials in Medical Oncology," *Clinical Cancer Research*, vol. 16, no. 21, November 2010, pp. 5296-5302. Jens Minnerup, Heike Wersching, Matthias Schilling, and Wolf Rüdiger Schäbitz, "Analysis of early phase and subsequent phase III stroke studies of neuroprotectants: outcomes and predictors for success," *Experimental & Translational Stroke Medicine*, vol. 6, no. 2, 2014.)

- Business: Of 13,000 RCTs of new products/strategies conducted by Google and Microsoft, 80-90% have reportedly found no significant effects. (Jim Manzi, *Uncontrolled: The Surprising Payoff of Trial-and-Error for Business, Politics, and Society*, Perseus Books Group, New York, 2012, pp. 128 and 142. Jim Manzi, *Science, Knowledge, and Freedom*, presentation at Harvard University's Program on Constitutional Government, December 2012, linked here.)

[5] Proctor, Bernadette D., Jessica L. Semega, and Melissa A. Kollar, U.S. Census Bureau, Current Population Reports, P60-256(RV), *Income and Poverty in the United States: 2015*, U.S. Government Printing Office, Washington, DC, 2016. U.S. Census Bureau, *Official and National Academy of Sciences (NAS) Based Poverty Rates: 1999 to 2011*, 2012. Kathleen Short, U.S. Census Bureau, HHES Division, *Estimating Resources for Poverty Measurement, 1993 – 2003*, 2005. Panel on Poverty and Family Assistance, National Academy of Sciences, *Measuring Poverty: A New Approach*, 1995, pp. 31-36. Christopher Wimer, Liana Fox, Irv Garfinkel, Neeraj Kaushal, and Jane Waldfogel, *Trends in Poverty with an Anchored Supplemental Poverty Measure*, December 2013.

[6] *The Nation's Report Card: Trends in Academic Progress 2012*, NCES 2013-456, National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education, 2013.

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[8] U.S. Census Bureau, Current Population Reports, 2016, op. cit., no. 5. This refers to inflation-adjusted income. It includes income from the economy (such as earnings) but not government transfers (such as Food Stamps). However, the evidence suggests that the overall story of income stagnation for the bottom 40% of households changes little even when one adjusts income for government transfers and other items that affect household living standards. Specifically, the Census Bureau's alternative, National Academy of Sciences-based poverty measures make adjustments for government transfers, as well as factors such as state and local taxes, work expenses such as child care, out-of-pocket medical expenses, and geographic differences in housing costs. These adjustments change the poverty rate in any given year, as well as the composition of those in poverty, but do not change the overall trend in the poverty rate over time – i.e., little overall progress since the late 1970s. (The relevant citations are in endnote 5.) Although the National Academy-based poverty measures only apply to a subset of the bottom 40% of U.S. households, their corroboration of no meaningful improvement for that key subset suggest that similar findings would be obtained for the larger group.

Army Analytics Group (AAG)

March 2017

daniel.c.Jensen.civ@mail.mil

AAG Mission

Mission: Provide analytical services for the Army's senior leadership and innovative application and data integration across the Enterprise.

Scope:

a. Provides problem solving capabilities that involve massive enterprise data integration and analysis coupled with the most advanced information technology (IT) solutions.

b. Provides research and analysis facilitation for Army organizations and other DoD organizations when approved by DUSA – network Army experts, their processes, data, and analysis tools within a secure platform environment.

Resources:

a. 16 Civilians, 3 Military Officers, 82 Contractors

b. Research Facilitation Laboratory (RFL), Medical Analysis Team (MAT)

c. Partners: HRC, CIO-G6, G2, INSCOM, CECOM, OTSG, USAPHC, AMC, JMC, 2RCC, ANC, DITMAC, NPS, TRAC, FNMOC, DMDC

2

Person-Event Data Environment

PDE is an environment which links People, Data, and Tools for problem solving.
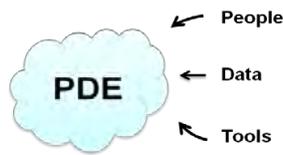
People
Data
Tools

Using a Governance Portal **people** create projects, request data from a data catalog, get linked up to tools & connected to data for research and quick study projects – Done Right and Right Now!

PDE is an Army operated system designed by the Army, Navy, DMDC, and OSD P&R.

PDE-Apps: take the research to end users

PDE ensures Human Subject Protection Regulations, and all PII/PHI rules are followed and audited.

The **Data** in PDE (over 600 data assets and growing)

Many **Tools** available:

3

Human Capital Big Data

Human Capital Big Data (HCBD) Initiative:

- Enterprise supervision of the HCBD analysis platform (PDE) and governance framework to ensure ethical and legal use, security and interpretation of human capital data

- Consistent analytical framework (descriptive statistics, policy analysis, and research) links data to strategic outcomes such as readiness and senior leader priorities

- More research and answers per dollar - 40-60% better utilization through automation of data delivery to analysis & decision making

Enabling Factors:

- Omni-bus Use Agreements

- Streamline Governance Workflows

- Enterprise Approach to Data Knowledge Sharing & Quality Reporting

- Secure Ecosystem

4

Backup Charts

5

PDE-Enclaves

The Insider Threat Stress Rating Study will be conducted in the Person-Event Data Environment (PDE) – Development by a partnership between DMDC, Navy and Army.

PDE consists of 2 separate enclaves with separate teams:

PDE Staging   **PDE Analysis**

PDE Staging:

Extract, Load, and Transformation specialist at location A.

Receive and load data and run transformation scripts to create double encoded de-identified data for the PDE analysis enclave.

Two Person Control – CAC card and 2 people required at all times to login together and work.

PDE data loaders sign an Acceptable Use Policy (AUP) form that outlines acceptable behavior while using the PDE Staging enclave.

PDE Analysis:

Researchers at location B use analytic tools to run analysis on the double-encoded de-identified data.

Researchers have no access to encoding keys

Researchers sign a PDE Acceptable Use Policy form (AUP) that states they will never attempt to link data to identify a person.

Researchers can only work within PDE

There is a multi-step process to move analysis reports out of PDE.

6

PDE Staging- Loading

PDE Loading Activities in PDE Staging Enclave:
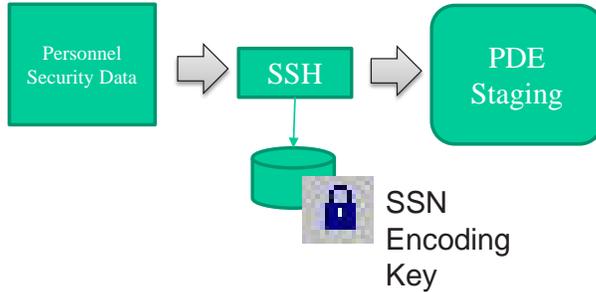
PDE Loading:

Data from sources is loaded into PDE Staging using scrubber programs on an SSH server.

Scrubbers remove SSNs and replace with 12 digit PDE-ID code.

The Encoding Key (SSN to PDE-ID) is stored in separate database under 2 person control

Run scripts to identify unique columns, remove name columns if present

Remove DEERS Person-ID, Postal Addresses, Telephone Numbers, Fax Numbers, Med Record Numbers, Health Plan Numbers, Account Numbers, Device Identifiers, URLs, IP addresses, Biometric Data, Photos, weapons identifiers

7

PDE Staging - Transforming

PDE Transformation Activities in PDE Staging Enclave:
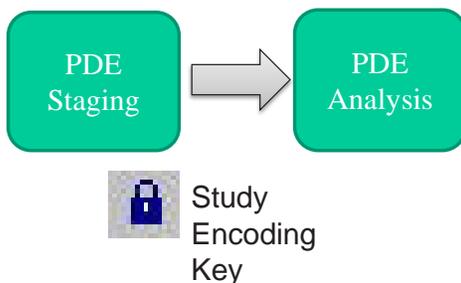
PDE Transformations:

Run Scripts to change location related data(UIC, Parent UIC, ZIP Code) into sequence or grouping codes.

Change Rank to Rank-Group and GS-Grade-Step to GS-Group and Birthday to Age-Group

Run transport script to send data to PDE analysis replacing PDE-ID with a random STUDY-ID. The

Study encoding key is stored under two person control and can not be accessed by the researchers.

Run scripts on free-text to transform to binary codes – free text is not allowed in PDE analysis

8

PDE Analysis

PDE Research Activities in PDE Analysis Enclave:

| PDE Analysis | Virtual Desktop | Researchers |

Research Teams:

CAC Login to a virtual Desktop inside PDE Analysis

Use analysis tools to conduct research (SAS, SPSS, R, Risk Rating Tool configuration)

Can not save to local workstations or drives

Cut and Paste has been disabled

Can place analysis results in a drop-directory that is then reviewed by AAG HPA for approval to transfer out of the PDE analysis enclave.

9

PDE Free Text Processing

Free Text Transformations

Free Text can be converted to a binary code.

Matrix of binary coded variables

Presence of words and phrases "alone", "loner", "keeps to her/himself"

Presence of words and phrases "social", "outgoing", "lots of friends"

STUDY-ID	Variable	jan06	feb06	mar06	apr06	may06	jun06	jul06
1000001	Is Male	1	1	1	1	1	1	1
1000001	Is Female	0	0	0	0	0	0	0
1000001	Is Married	0	0	1	1	1	1	1
1000001	Is Age Group4	0	0	0	0	0	0	0
1000001	Is Age Group5	1	1	1	0	0	0	0
1000001	Is Age Group6	0	0	0	1	1	1	1
1000001	Is Potential Lone/Sad	1	1	0	0	0	0	0
1000001	Is Potential Outgoing/Happy	0	0	1	1	1	1	1
1000001	Has Dependants	0	0	0	0	0	1	1
1000001	Has GED	0	0	0	0	0	0	0
1000001	Graduated High School	1	1	1	1	1	1	1
1000001	Continued Education	0	0	0	1	1	1	1
1000001	Security Incidents	0	0	0	0	0	0	0
1000001	Deployed	0	0	0	0	0	0	0
1000001	Transition UIC	0	0	1	0	0	0	0

10

Defense Manpower Data Center Overview

Presented by:

Mark Breckenridge
Deputy Director, DMDC

- **What is DMDC?**
  - A solution provider for all things people (enterprise)
- **Why us?**
  - We have the Person Data Repository (PDR) and Local Population Databases
  - We know the data
- **What makes us stand out?**
  - We care about the people, their benefits, and their data
  - We deliver quality products on time and at lower cost than most because we are highly leveraged
  - We are passionate about our customers' business and making them successful
  - We continuously innovate

DMDC Organizational Structure
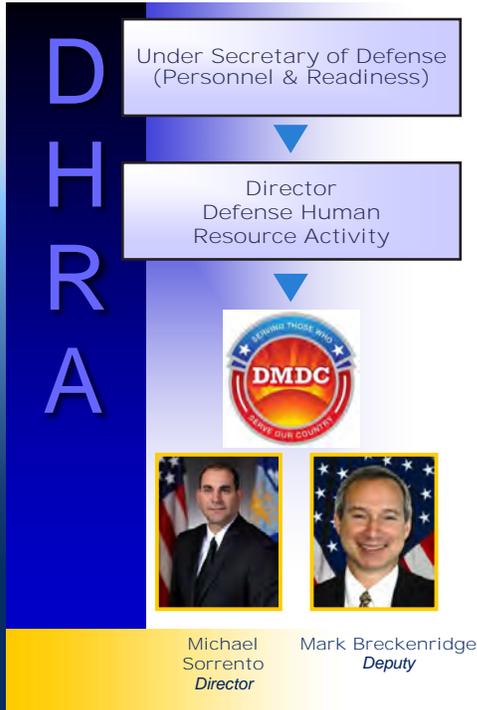
A Global Organization

Office Locations
- DoD Center Monterey Bay, CA
- Metro Washington, DC
- Boyers, PA
- San Antonio, TX
- Germany
- South Korea
- SW Asia
- Fort Knox, KY
- Dayton, OH

Personnel
- 444 DoD Civilians
- 1450+ Contractors
- 10 Service Component Liaisons

Budget FY16
- O&M Direct: $358,000,000
- Procurement & R&D Direct: $18,200,000

D H R A

Under Secretary of Defense
(Personnel & Readiness)

Director
Defense Human
Resource Activity

Michael Sorrento
Director

Mark Breckenridge
Deputy

3   *Serving Those Who Serve Our Country*

Data Repositories

DMDC data includes the Person Data Repository (PDR), Local Population Databases and several flat files

The PDR holds information on 50 million people

The PDR includes:

- 7 Uniformed Services
- Retirees
- Medal of Honor
- ROTC

- Wounded, ill and injured
- Disabled American Veterans
- DoD and Non-DoD Civilians
- Contractors & Non-Appropriated Funded

- Foreign Military
- Family Members
- Veterans
- Patients

Local Population Databases hold an additional 2 million people

- Personal service employees, visitors, and delivery vendors at military bases*
- Contract personnel in Afghanistan and Iraq
- Persons evacuated during crisis

4   *Serving Those Who Serve Our Country*

Conceptual Data Model

4854 data elements plus 2096 data elements not yet mapped.

5

Serving Those Who Serve Our Country
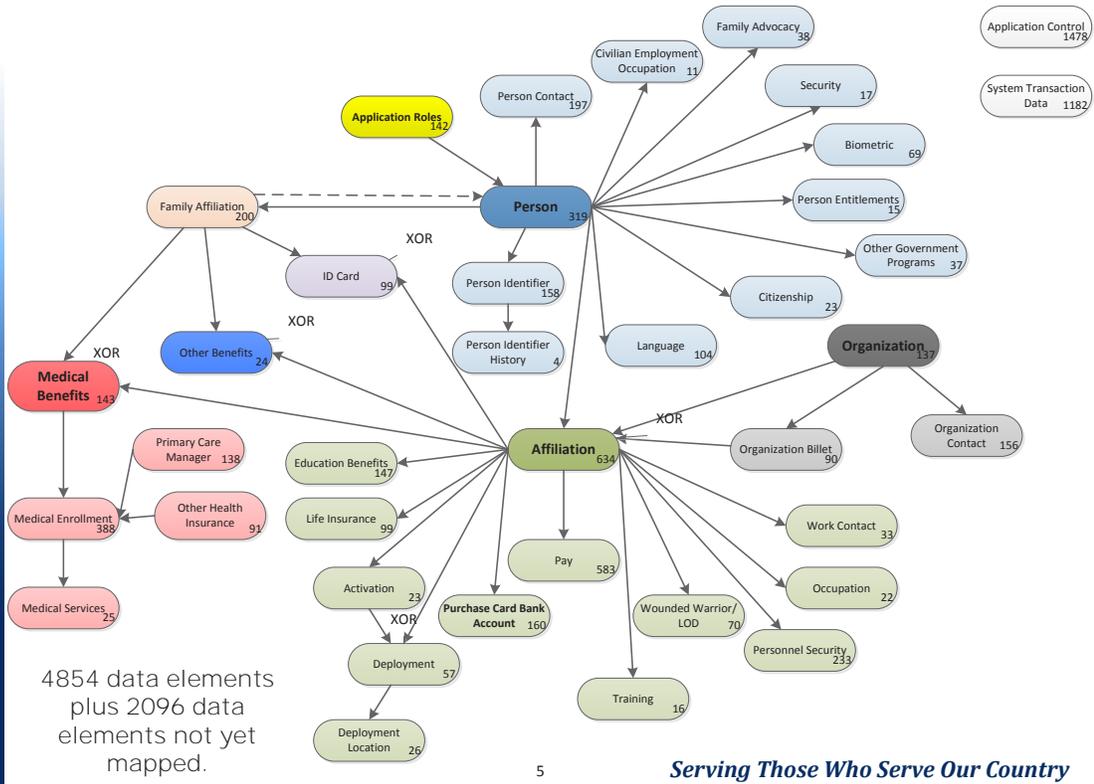
The Persistent Question

"How do we leverage what we already have to enhance capability in such a way that the value offered is greater than the costs incurred?"

6

Serving Those Who Serve Our Country

Customers

Who receives DMDC's products and services?

CIO
ABAC
CAC
Identity
for Enterprise email
Mobility
SIPR token (maybe)
IA Workforce

AT&L
Purchase Card
Contracts/Grants
SPOT
Acquisition
workforce

USD(I)
JPAS/DISS
IMESA
CE
Security research
Security workforce
SWFT

P&R
ID cards
Transition Assistance
Personnel Accountability
Benefits (MHS, Tricare,
SGLI, Education ,
Commissary, Exchange)
Funeral Honors
SCRA
ASVAB
DLPT
Personnel Surveys
DRRS to come
DTS (Legacy & Next Gen)
PDE
Law Enforcement/IC
Physical Security system
Vietnam Wall names
Personnel research
ECMRA
HSPD-12

Uniformed Services (7)
(including retirees/
family members)
Benefits (letters/call center)
ID cards/RAPIDS
Data

Joint Staff
GFM-DI support
Joint Duty Assignments
NTS
JPERSTAT
COCOM Personnel Data

TSA
Pre-check

Labor
Data Sharing
Occupational
Matches

VA
Benefits
Data sharing
DS-Logon (self service)
Identity
e-Benefits portal portlets
State VAs

HHS
ACA/MEC
Medicare data sharing
State benefits data sharing

IRS, Census Bureau, SSA
Data
Data matching

Comptroller, OMB, CBO, Congress, RAND, CNA, IDA, PA
Data requests

7

Serving Those Who Serve Our Country

Data Requests

DMDC provides operational and research support for over 35 federal agencies.

DMDC handles about 10,000 data requests annually.

- Identification
- Physical Location
- Skills Profile
- Affiliation Status
- Biometrics
- Contact Info
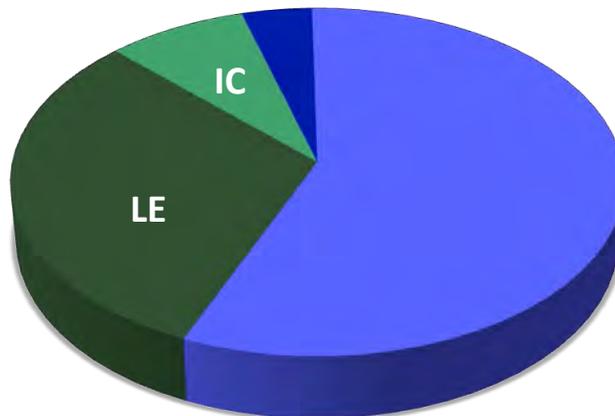
35% of data requests are Law Enforcement
and Intelligence Community

8

Serving Those Who Serve Our Country

Call Center/Beneficiary Support

- Self-service – milConnect – CAC or DS-logon
- 85,000 calls per month overall / 60,000 calls per month beneficiary
- 7.1M letters annually – moving to email
- Real-time authentication for pharmacy scripts (wholesale, retail, military, commercial)
    - Sub-second response
- Customer Care Teams for exceptional concerns/issues

9   *Serving Those Who Serve Our Country*

How can we help?

Partnership and Teaming

The heavy lifting has been done

- Serving our customers, helping them do their jobs more effectively *and more efficiently*

- DMDC is only one piece – We collaborate with many other organizations within the Federal Government to ensure that the mission needs are met.

- Collaborating with other agencies and industry partners to work toward interoperable capabilities and innovative solutions

Success through teamwork

10   *Serving Those Who Serve Our Country*

The Person-Event Data Environment: leveraging big data for studies of psychological strengths in soldiers

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The Department of Defense (DoD) strives to efficiently manage the large volumes of administrative data collected and repurpose this information for research and analyses with policy implications. This need is especially present in the United States Army, which maintains numerous electronic databases with information on more than one million Active-Duty, Reserve, and National Guard soldiers, their family members, and Army civilian employees. The accumulation of vast amounts of digitized health, military service, and demographic data thus approaches, and may even exceed, traditional benchmarks for Big Data. Given the challenges of disseminating sensitive personal and health information, the Person-Event Data Environment (PDE) was created to unify disparate Army and DoD databases in a secure cloud-based enclave. This electronic repository serves the ultimate goal of achieving cost efficiencies in psychological and healthcare studies and provides a platform for collaboration among diverse scientists. This paper provides an overview of the uses of the PDE to perform command surveillance and policy analysis for Army leadership. The paper highlights the confluence of both economic and behavioral science perspectives elucidating empirically-based studies examining relations between psychological assets, health, and healthcare utilization. Specific examples explore the role of psychological assets in major cost drivers such as medical expenditures both during deployment and stateside, drug use, attrition from basic training, and low reenlistment rates. Through creation of the PDE, the Army and scientific community can now capitalize on the vast amounts of personnel, financial, medical, training and education, deployment, and security systems that influence Army-wide policies and procedures.

Keywords: big data, psychological strengths, cost analysis, healthcare utilization, personnel data

As the quantity of data collected on members of the Army community (soldiers, family members, and civilian employees) continues to increase, researchers and information technology professionals are faced with a daunting task; effective management and analysis of increasingly larger pools of information with potentially stagnant or dwindling resource levels. Since 2006, the Army has incrementally developed the Person-Event Data Environment (PDE), a secure, collaborative research environment, to warehouse and study health, military service, and demographic information that is regularly collected on Army Active-Duty, Reserve, and National Guard soldiers, their family members, and Army civilian employees. This unique resource enables vetted researchers worldwide to mine this trove of data with a scientific mindset that can answer questions benefitting both the Army and wider scientific community.

This paper examines three aspects of the PDE. The first section focuses on the operating environment that gave rise to the PDE, primarily emphasizing challenges researchers have faced when working with sensitive but unclassified Department of Defense (DoD) data. The second aspect focuses on the structural design and operational capabilities of the PDE. This discussion includes the PDE's physical and logical structure, the data contained within, and the statistical tools that are made available to researchers.

Special attention is given to data sources that are most applicable to studies of psychological functioning as well as soldier outcomes that have important cost implications for the Army. The third section focuses on the types of research that may be conducted within the PDE. Where relevant, the authors have cited active research projects and multi-site collaborations. The paper concludes with a discussion of how the PDE can inform both science and policy.

OPERATING ENVIRONMENT

The PDE was created to address several challenges that researchers face when working with DoD health, military service, and demographic data. These challenges include centralization of disparate data sources into an electronic repository, providing effective data security, and making the data accessible to researchers worldwide. The subsections below address each challenge in turn and how they have influenced the PDE's development.

BIG DATA OVERVIEW

The DoD digitizes an increasing amount of soldier information every day. Within the DoD, the Defense Manpower Data Center warehouses the largest archive of soldier performance data covering more than 43 million soldiers, veterans, their family

members, and DoD civilian personnel (Defense Manpower Data Center Overview, 2012). The scope and size of these records are both steadily increasing over time as additional data elements are added and tracked. The accumulation of trillions of cells of information approaches, and may even exceed, traditional benchmarks for Big Data.

CHALLENGES WITH DATA ACCESS

The sheer existence of such a repository does not necessarily imply that the data are accessible. The Army faces the same challenges that many large organizations face – stove-piped data collected for a specific purpose but not easily repurposed; specific policies that intentionally protect privacy, restrict access, and specify uses; and hesitancy to form collaborative relationships with outsiders (Landsbergen and Wolken, 2002). With this in mind, the burden falls on individual researchers to formulate data use agreements with each data source provider. This is, at best, a tedious and lengthy process and in other instances, this can represent an insurmountable barrier to research, particularly if a data asset provider resists sharing their data. The PDE aids in this effort by making as much data as possible available without the need for project-specific data use agreements. Furthermore, data providers are becoming increasingly familiar with the PDE and previously vetted, standardized data use agreement contract language may be used to help expedite the data request process.

SECURITY OF DATA

The accumulation of large pools of data provides countless research possibilities and necessitates proper governance to prevent abuses and privacy violations (United States Government Accountability Office, 2008). For example, one can easily imagine a scenario in which a data-mining application classifies individuals on some basis of risk, grouping them into unique clusters, for instance, based on higher risk for suicide, drug use, violent crime, or some other sensitive objective criteria. Although individuals may be assigned into these higher risk groups, the assignment method will include a number of false positives due to the low base-rate of these outcomes. An accidental or intentional release of these classification results could have devastating effects on an individual's career or social standing even though no transgression of Army regulations has been (or may ever be) committed. The PDE incorporates several security and governance features to maximize data security and prevent harm to study subjects.

UNDER THE HOOD

The PDE is a secure, cloud-based research environment that provides data and software as a service. This section briefly describes the PDE system architecture, continues with a discussion of features that enhance privacy and security, and closes with an overview of the data and tools that are currently contained within the PDE.

SYSTEM AND DATA ARCHITECTURE

Figure 1 illustrates the separate security and analysis enclaves within the PDE. Only PDE administrative staff has access to the

PDE-Security Enclave, a back-end server that houses the full data resource holdings. Data is not transferred from the PDE-Security Enclave until researchers submit and receive Federal approval for a study. At this time, data (acquired from a military data source provider) is then pushed to the PDE-Analysis Enclave, which researchers can access through a remote, secure connection. The architecture detailed in **Figure 1** incorporates numerous security and privacy features to protect the data, and these features are described below.

SECURITY AND PRIVACY FEATURES

The traditional academic research model requires agencies to provide data to researchers. This creates duplication as many "ivory tower" researchers tend to work independently without drawing on shared institutional and personnel resources, let alone common data archives. Alternatively, the PDE brings researchers to the data. This is achieved through Citrix XenDesktop software, which allows users to securely access the data and software through an Advanced Encryption Standard 256-bit connection. Researchers are required to download and install a free copy of Citrix Receiver in order to use this service.

Data loaded into the PDE may not be extracted in any shape or form by researchers. Physical hardware and software limitations are in place to prevent breach of security protocols (i.e., data loss), such as no inter- or intra-net connections and no ability to copy and paste from the PDE to a user's desktop. Users may request extraction of certain allowable non-data file types (e.g., Microsoft Word® documents), at which point PDE staff will conduct a compliance review to ensure the requested files do not contain personally identifiable or protected health information. A similar vetting process is in place for uploading program or syntax files into the PDE.

Personally identifiable and protected health information is securely transformed in order to minimize the risk of identifying individuals. Social security numbers (used to merge soldiers across time and data sources) are replaced with a random string of 12 digits that are unique to each individual and to each study. The algorithm "key" mapping this transformation is destroyed at the conclusion of the study. In addition to replacing social security numbers with a scrambled identifier, additional transformations of other personal identifiers are performed. This further reduces the risk of an individual being identified by an analyst, while maintaining enough information for standard analysis and reporting of aggregate data. For example, ranks and pay grades are condensed into groups, in some cases Julian dates are converted into YYYYMM format (or recorded only as YYYY), and unit identification codes are also scrambled. **Figure 2** diagrams the PDE procedure for transforming unit identification codes.

REGULATORY FEATURES

Regulatory and compliance oversight of the PDE is provided by the Army Human Research Protections Office, the Army's in-house equivalent of an "Institutional Review Board." The Army Human Research Protections Office provides assurances that cover protection of the rights, welfare, and well-being for human subject research conducted or supported by the U.S. Army.

FIGURE 1 | PDE system architecture.
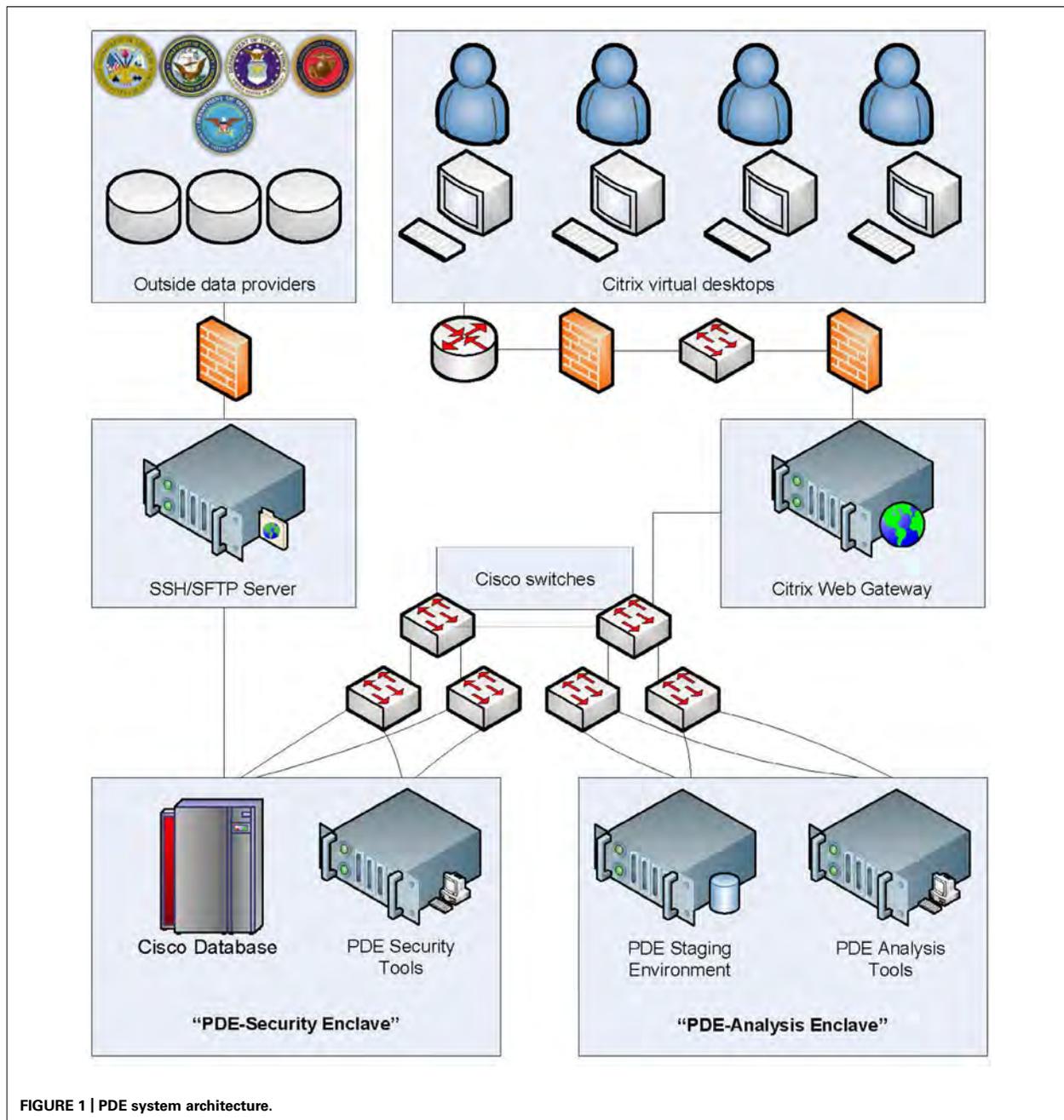
These assurances are guided by the ethical principles set forth in the Belmont Report (Ethical Principles and Guidelines for the Protection of Human Subjects of Research) and the minimum standards set by the Department of Health and Human Services, Office for Human Research Protection regulations (45 CFR 46). In addition, Army Human Research Protections Office staff members conduct periodic assessments of current research projects to monitor compliance. More extensive compliance assurances are required for use of personally identifiable and protected health information involving medical data and covered under the standard Privacy Act regulations (Pub. L. No. 93-579) and subsequent amendments (USC Sec. 552a, Title 5, Part I, Chapter 5, Subchapter II). These assurances are further augmented by the Army human subjects policy provided in DoD 6025.18-R (DoD Health Information Privacy Regulation). Additionally, PDE staff members facilitate research by conducting "first-pass" reviews of proposals and assisting researchers with compliance questions and documentation.

FIGURE 2 | Unit identification code (UIC) transformation.
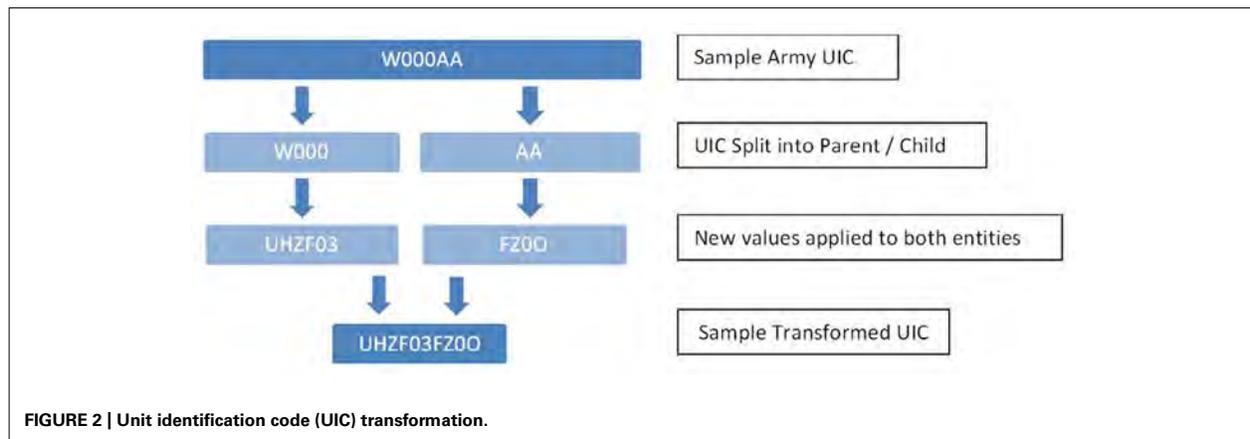
STATISTICAL TOOLS

The PDE remote desktop contains a suite of statistical, computational, and word processing tools that are made available to researchers. Currently these include Stata®, SPSS®, Mplus®, SAS® Enterprise Guide®, Toad™ for Oracle®, Qlikview®, R, and the Microsoft Office® suite. Thus, in addition to extensive statistical modeling of Army data, analysis findings can be compiled for publication (peer-review articles or technical reports) entirely within the PDE. Some software packages have a limited number of "seat" licenses available, while others such as the freely available software program, R, allow unlimited use. Additional researcher-provided software and licenses may be loaded into the PDE if the software has been issued a Certificate of Networthiness from the Army Networthiness Program. The certificate procedures are designed to protect government information systems from security threats posed by commercial and other types of enterprise software. The Army's current approved software list is not available on the web, but is publicly available through the PDE staff.

DATA AVAILABILITY

The PDE's data holdings are large and continually growing as new data assets are loaded. The holdings, currently totaling more than six terabytes (i.e., 6,000 gigabytes), are expected to double over the coming months. Currently, the PDE contains Army data on corrections and legal issues, physical fitness tests, military service information, deployments, demographics, training records, health assessments, medical visits, medical evacuations, injuries, deaths, psychological functioning, accessions, recruiting waivers, pay, and educational attainment. In the ensuing discussion we highlight datasets that can help illuminate the role of psychological assets in major cost drivers such as medical expenditures during deployment and stateside, drug use, attrition from basic training, and low reenlistment rates.

The Global Assessment Tool (GAT) is a primary tool used to assess psychosocial functioning in soldiers. Launched Army-wide in 2009, the GAT is a computerized, self-report questionnaire taken annually by all soldiers as part of the Comprehensive Soldier and Family Fitness (CSF2) program (Fravell et al., 2011). Soldiers may take the GAT up to four times a year, if desired. Upon completing the GAT, soldiers are provided normative feedback (based on a peer equivalent comparison group) on their relative strengths and weaknesses across the various psychosocial fitness dimensions. Then, as part of the CSF2 program, soldiers receive personalized recommendations for web-based trainings designed to further develop their psychological fitness. Since its inception, the GAT has been taken over 3.2 million times by over 1.3 million unique individuals (Office of CSF2, personal communication, August 26, 2013). The GAT assesses a range of psychological strengths, including self-management and coping skills, flexible thinking, positive affect, meaning, optimism, character strengths, social support, and social engagement, to name a few (Peterson et al., 2011).

Medical expenditures are major drivers of avoidable personnel costs for the U.S. Army. Tricare Management Activity is the health insurance provider for Active-Duty, National Guard, and Reserve soldiers, their families, survivors, and other eligible individuals. Tricare's data holdings represent the largest collection of electronic medical records for the military. The Medical Data Repository is a Tricare-managed database housing electronic health records for all aspects of the medical treatment process conducted stateside. The repository includes medical encounters (e.g., physician office visits), surgical procedures, prescription use, and illness diagnoses (ICD-9 codes), to list a few examples. In addition, the repository houses a number of cost variables that are familiar to health economists, such as relative value units and medical expense performance and reporting system codes. Tricare's Theater Medical Data Store maintains similar health records for services rendered while soldiers are deployed, although cost variables are not captured (but can be computed from standard economic healthcare valuation tables). Additionally, the quality and timeliness of the Theater Medical Data Store records varies as a function of the deployment environment in which the medical services are provided. For example, some medical services may be conducted informally during deployments and, as a result, are never formally documented in the data system.

Drug and alcohol abuse are also cost drivers for the Army. Costs due to substance use are not limited to direct medical care; costs are also incurred due to disciplinary action, outpatient treatment and prevention programs such as the Army Substance

Abuse Program, and discharges from the Army. Furthermore, past research has demonstrated a link between psychological functioning and substance abuse. As a group, soldiers with positive urinalysis or breathalyzer tests for illicit drug use score significantly lower on the GAT survey instrument, even after controlling for demographic differences (Lester et al., 2011a). The Medical Data Repository and Theater Medical Data Store contain records on soldiers' doctor visits and hospital services related to drug and alcohol abuse, but not all substance abuse problems result in medical treatment. Researchers may also request data from the Army's Drug and Alcohol Management Information System, which tracks positive breathalyzer and urinalysis drug tests. Additionally, the Drug and Alcohol Management Information System captures when a unit commander makes a referral for a soldier to seek treatment and whether behavioral consultation referrals are consummated.

Attrition represents another major driver of personnel costs for the Army. Information pertaining to recruits who do not complete basic training is stored in the Medical Entrance Processing Command database, accessible through the PDE. After completing basic training, thousands of soldiers leave the Army or do not reenlist for a second term at the end of their military service contract. Information on soldiers who successfully complete basic training, and then subsequently attrit from the Army, is tracked in "Transaction Files" by the Defense Manpower Data Center, which are also accessible through the PDE.

Many of these assets are still only available to fully vetted PDE users with valid data use agreements. However, researchers are currently able to request access to military service information, deployments, demographics, accessions, pay, and waivers without a data use agreement. The PDE staff continues to work toward wider data availability, which is expected to grow as data providers become more comfortable with the PDE.

RESEARCH FACILITATED BY THE PDE

This section describes three research efforts currently utilizing the strengths of the PDE. The first is a series of analyses conducted in support of the CSF2 mission, which evaluate the psychometric properties of the GAT and the efficacy of the CSF2 program. Next, we briefly discuss military-civilian collaboration between the Army, the University of Pennsylvania, and the Robert Wood Johnson Foundation. This breakthrough project seeks to identify positive psychosocial assets that enhance mental and physical well-being among U.S. Army soldiers. The third project represents collaboration between the Naval Postgraduate School and the Research Facilitation Team, which seeks to determine the cost implications of poor psychological health to the U.S. Army.

U.S. ARMY COMPREHENSIVE SOLDIER AND FAMILY FITNESS

In support of CSF2, a series of research efforts have examined the normative relations between resilience (i.e., psychological health) and a wide range of negative and positive outcomes. For example, one line of inquiry has found that soldiers who receive low GAT scores have a significantly higher propensity for suicide, psychological illness, drug use, and criminal behavior (Lester et al., 2011a; Harms et al., 2013). A different line of inquiry has linked higher GAT scores to accelerated promotions, promotion to brigadier general, selections for command assignments, and Army career fields that require professional degrees (Lester et al., 2011b).

Additionally, scientists have evaluated the Master Resilience Training (MRT) program, a "train the trainer" intervention developed to foster psychological resilience in soldiers. Exposure to MRT was associated with statistically significant increases in resilience and psychological health, and a slightly lower likelihood (11% decrease, based on the corresponding odds ratio) of being diagnosed with a mental health problem, such as post-traumatic stress disorder (PTSD; Harms et al., 2013). Furthermore, soldiers exposed to the MRT program displayed a 58% lower rate of substance abuse problem diagnoses (based on the corresponding odds ratio); significantly lower than their counterparts who were not exposed to MRT. The PDE was instrumental in facilitating access to the MRT program evaluation data assets. Furthermore, consistent with the instrumental goals of the PDE, the corresponding reductions in mental health and substance abuse problem diagnoses could represent tremendous cost-saving potential for the Army.

MILITARY-CIVILIAN COLLABORATION

In 2011, the Robert Wood Johnson Foundation awarded the University of Pennsylvania (Penn) a grant to examine predictors of positive health in the Army. A major component of this grant revolved around creating a foundation for future military-civilian collaboration. Toward this end, the Penn team began by re-examining the psychometric structure of the GAT. Confirmatory factor analysis models posited a lower-order factor structure including positive cognitions, self-management skills, positivity (affect), character strengths (e.g., warmth), and social engagement (e.g., social network; Vie et al., 2013). In addition, a higher-order model of psychological strengths adequately accounted for the moderate statistical relations among the primary factors. This more refined and parsimonious representation of GAT strengths enables more precise examination of predictors of positive health and is well suited for examining criterion-related validity. A chronometric model demonstrated that psychological assets increase in a linear and positive manner over time. Subsequent analyses have also conditioned growth in psychological assets on various deployment indices and demographic factors (e.g., gender, age). In addition, measurement invariance is being tested across various demographic subgroups, in order to identify whether GAT subscales have unique meaning for different subgroups (e.g., gender, age, education, and marital status).

The Penn team is currently studying the impact of combat deployments on psychological health. Deployment represents an important, and highly relevant, potentially stressful event that many Army soldiers experience at some point during their service. Past research has examined development of PTSD symptoms following deployment. However, rather than taking a deficit approach (i.e., assessing ill-being), Penn researchers are capitalizing on the data resources in the PDE by examining associations between deployment experiences and soldiers' levels of psychosocial strengths over time. The team is also examining relations between pre-deployment psychosocial strengths and post-deployment depressive symptoms and negative affect. Preliminary analyses reveal that having fewer psychosocial strengths

is associated with more depressive symptoms and negative affect post-deployment (controlling for early symptom levels), whereas having more psychosocial strengths is protective and associated with fewer depressive symptoms and less negative affect post-deployment.

ECONOMIC ANALYSES

Economists at the Naval Postgraduate School are working to determine the costs of poor resilience and psychological health to the Army. In addition, efforts are also underway to identify the potential economic benefits that could accrue to the Army through recruiting, training, and maintaining a psychologically healthy and resilient force. Poor psychological functioning places a significant burden on the Army (e.g., through costs related to attrition, healthcare utilization, and psychological illness), and the struggle for armed forces mental health professionals to treat illnesses following combat has been considered by some the Army's "third front" (Thompson, 2010). On this issue, Former Defense Secretary Robert Gates once declared, "health care costs are eating the Defense Department alive" (Gates, 2010). The initial phase of this research effort emphasizes four cost elements related to poor psychological functioning – attrition during initial military training, attrition before completion of first-term enlistments, increased medical usage during deployments, and a higher likelihood of receiving a diagnosis for PTSD or major depression post-deployment. Preliminary results have demonstrated a significantly higher risk of attrition for recruits that are in the bottom 10% of GAT scores, the latter treated as four dimensions assessing spiritual, emotional, social, and family fitness. Furthermore, the results include the first-ever estimate of the annual costs to the Army and DoD for treatment of PSTD and major depression. Future phases may include additional cost elements such as increased usage of medical care stateside, heightened risk of drug and alcohol abuse, increased likelihood of committing a criminal offense, and other negative soldier outcomes.

Estimates of annual Army expenditures related to the treatment of PTSD alone range from $1.54 to $2.69 billion (Cesur et al., 2011). However, these are merely estimates based on either simulations or extrapolated treatment costs obtained from civilian medical facilities. The current research program utilizes actual patient encounter data provided by Tricare to determine the actual annual expenditures that are directly attributable to PTSD and major depression. Additionally, costs of basic training are estimated at $73,000 per soldier (U.S. Army Recruiting Command, 2011). Considering that tens of thousands of Army recruits attrit during basic training and thousands more soldiers attrit before completion of their first-term enlistments, the cost of attrition quickly escalates into hundreds of millions of dollars per annum. Even small reductions in the attrition rate could result in potential savings of tens of millions of dollars each year.

Once completed, the findings from this project will enable decision-makers to determine the potential savings to the Army and DoD through increases in force-wide psychological health. Currently, researchers may only observe the costs of behavioral health programs and the subsequent changes in soldier outcomes, without knowing the true monetary value of any positive changes observed. These savings, once known, allow for more inclusive program evaluation that includes cost-benefit analysis of CSF2 or other behavioral health interventions. Military leaders responsible for making decisions regarding instituting force-wide training will then be able to observe the return on investment for such programs.

DISCUSSION

The PDE is currently set to expand significantly in the near future. This expansion entails both procuring additional data assets and physical hardware to increase PDE bandwidth. Once fully operational, the PDE represents a tremendous opportunity for scientific advancement via research and careful analysis. Those working diligently toward meeting this goal often characterize the promise of the PDE as potential energy that, if properly focused, could lead to significant breakthroughs benefitting science and humanity. Promise aside, there are a few basic tenets that must hold true in order for the PDE to become the standard for the governance of, security for, access to, and analysis of Army and DoD data.

First, we must carefully attend to the notion that the purpose of the PDE is to bring scientists to the data, rather than pushing data to scientists. Put succinctly, the data in the PDE describe one of the U.S.'s most valuable resources – the men and women of our military community – so proper governance is warranted. Second, we must continue to expand the data held within the PDE in order to keep it relevant. While the PDE likely represents the broadest range of DoD personnel data, there are many other datasets that have yet to be integrated into the PDE; such integration will be iterative as new data emerge, and it will likely take years to bring in the lion's share of existing data. Third, the PDE must be easy to use and continuously improve based on user feedback, if we expect the research community to utilize this platform. Finally, while we must be mindful of our security and privacy concerns, we must also trust our processes and governance systems if we are to meet our ultimate goal – providing access to the broader scientific community.

Keeping true to these tenets falls to the Army's Research Facilitation Team. The Research Facilitation Team – whose staff consists of research psychologists, economists, and Big Data information technology experts – was established in 2013 to not only provide governance over the PDE, but also to assist researchers in using the PDE. Given the metadata needed to navigate the vast data holdings within the PDE, this team is invaluable in shepherding new users and their projects through the data request, review, and analysis process. The Research Facilitation Team fosters collaboration within the PDE user community so that participating government organizations and researchers may survey the wide variety of work done within the PDE. This is all done with an eye toward leveraging efficiencies and reducing redundancies across research projects.

The PDE represents a rare opportunity to connect the military with the wealth of knowledge and experience contained within the wider scientific community. Working side-by-side, military and academic researchers will collaborate and examine the confluence of psychological health, soldier performance, economics, and more. The results of this research may inform Army-wide policy decisions regarding recruitment, prevention and treatment

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Vie et al. Army, big data, soldier fitness

programs, job assignments, manpower training, and budgeting. The PDE represents a growing opportunity to unify science, data, and technology under one umbrella in order to bring the best information to bear on issues which have widespread implications for the DoD.

ACKNOWLEDGMENTS

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Defense Personnel and Security Research Center (PERSEREC): Overview

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Office of People Analytics (OPA)

March 24, 2017

PERSEREC

PERSEREC's Mission

Improve the Effectiveness, Efficiency, and Fairness of DoD Personnel Security and Suitability Programs

2

PERSEREC – Who We Are

1986	**Since 2011**
In the wake of catastrophic espionage by John Walker and other spies, our mission was to improve the effectiveness, efficiency, and fairness of personnel security in the DoD	In the wake of events like 9-11, Ft. Hood, and the Washington Navy Yard shootings, we expanded our mission to address a broader range of human capital, insider threat, workplace safety, and security issues

Throughout our history, we have:

- Conducted long-term programmatic research for the military, security, and intelligence communities
- Provided quick-response analyses and studies in support of policy makers, systems operations, military leaders, and security practitioners
- Developed innovative tools and job aids

3

PERSEREC Six Core Capabilities (1-3)

1	**Automated Record Checks**	Support Development of Systems for Using Automated Data Sources to Improve the Vetting and Continuing Evaluation of Personnel.
2	**Emerging Indicators**	Assess the Relevance, Value, and Ethical Use of Social Media for Suitability and Security Vetting and Informing Health and Wellness Programs (e.g., Suicide Prevention).
3	**Special Policy Initiatives**	Inform Senior Decision-makers with Quick Response Studies and Analyses in Support of Improved Policy and Processes, e.g., on security risks associated with certain mental health conditions.

4

PERSEREC Six Core Capabilities (4-6)

4	Security and Suitability Vetting Support	Improve Suitability and Personnel Security Vetting Processes through Development of Requirements, Standards, and Processes that Comply with Policy and Meet DoD Needs.
5	Insider Studies	Be an Authoritative Source of Information on Espionage, Terrorism, Workplace Violence, and Other Insider Threats and Develop More Effective Systems, Tools, and Interventions to Prevent, Detect, and Mitigate Activities that may Cause Harm to National Security.
6	Data Science & Advanced Analytics	Apply Advanced and Big Data Analytics to Human Capital, Security, and Cost Issues

5

Insider Risks, Motivations & Behaviors Vary

"Insider risk": Security & safety risks associated with trusted government employees, military personnel and contractors

- **Espionage/leaks**
  e.g., cleared employee provides classified info to a foreign group
- **Terrorism/violence**
  e.g., radicalized military personnel turns violent
- **Vandalism/disruption**
  e.g., vengeful employee harms his organization's computer system
- **Reliability problems and gross negligence**
  e.g., employee with alcohol/substance abuse, psych problems, or gross incompetence fails to protect sensitive info/systems

6

Examples of FY16 Studies Conducted at PERSEREC

7

Evaluation of Foreground Factors in the Shaping of Insider Threats

Issue: Insider threat prevention and research efforts have focused on identifying early warning signs of individual behavior rather than taking into account factors in the organizational environment which may influence insider threat behaviors, particularly workplace violence

Context: Despite 79 recommendations from the Fort Hood review board 2010 report, dangerous incidents at military installations have continued

- 2012 Fort Bragg, North Carolina – 1 dead
- 2013 Washington Navy Yard – 4 wounded, 13 dead
- 2014 Fort Hood, Texas – 12 wounded, 4 dead

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Method: Conduct a comparative case study of ~10 lethal targeted workplace violence cases by military, DoD civilian or contractor personnel within the last 5 yrs.:

- Describe the background and environmental factors
- Describe the effectiveness of efforts to intervene

Outcome: The current effort will provide policy makers at OUSDI with greater understanding of how foreground factors shape insider threat behavior. Pending success/interest PERSEREC could then:

- Recommend policies and/or follow on research
- Develop training and communication materials

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Incorporating PAEI into Continuous Evaluation (CE)

Issue: Is Publicly Available Electronic Information (PAEI), e.g., social media, a viable data source for CE?

Context: Previous research found that PAEI can provide uniquely relevant information that can help inform the personnel security decision-making process (Rose & Whiteley, 2014).

- Individuals disclose information on social media platforms that they may not share anywhere else
- FBI checks are limited but information about arrests, charges, and convictions can be found online
- Social media data can provide additional contextual information

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Method: Obtain a random sample of 4,000 subjects from the CE population and conduct baseline PAEI checks. Select a sub-sample of 1,250 subjects and conduct CE PAEI checks.

Outcome: Identify the type and frequency of adjudicatively-relevant behaviors that occur online, evaluate the timeliness and uniqueness of the information, and assess the workload impact to determine if PAEI is a suitable data source for CE.

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Policy, Process, and Adjudication of Mental Health Information in Personnel Security Vetting

Issue: Question 21 (a series of mental health Qs) on the Personnel Security Questionnaire (SF-86) is being revised and DoD needs to understand the extent to which the current system is capable of handling the new information solicited by the revised question.

Context: The revised Q21 will allow for a more relevant collection of mental health information from the subject
- OMB preparing for public comment on Q21 in Federal Register
- New Q21 is based on PERSEREC's "Relevant Risk Approach"
- Goal is to obtain more productive and verifiable information for investigation and adjudication of mental health issues

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Method: Use of a combination of literature and policy reviews, and interviews with experts, to:

- Outline current investigative and adjudicative policies and procedures
- Evaluate if current processes are adequate for handling info collected under the revised Q21
- Use experts and literature to identify best practices for addressing gaps

Outcome: The current effort will provide policy makers with recommendations for handling information collected under the revised Q21

- Changes to standard operating procedures for investigators, adjudicators, and evaluating psychologists

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Data Science Exploration of DMDC Data Sources for Modelling and Improving Personnel Systems

Issue: DMDC houses a variety of data that could be useful for understanding suitability issues, Continuous Evaluation (CE) and military attrition but research is needed to evaluate it.

Context: Data Science technologies and advanced analytics can be used to develop algorithms for analysis of data across data sources to identify key indicators and predictors of behaviors of security, suitability and manpower concern.

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Method: Gather data on a sample of DoD personnel and conduct analysis.

- Code and extract data
- Analyze data using data science technologies and advanced analytics
- Develop and test algorithms

Outcome: This effort could provide evidence-based recommendations for policy makers and operations managers at OUSD(I) and OUSD(P&R) regarding how to incorporate DMDC data into Systems related (for example) to CE, suitability and military attrition.

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A Few Insider Threat Overarching Insights

- Indicators of personnel concern are often ambiguous. Appropriate reporting and follow-up are critical

- Initial screening is important, but continuous evaluation/monitoring is more important

- Need to fuse relevant, appropriate and legal indicators from multiple sources, e.g., classic record checks (such as FBI, travel, credit), social media, employee work network monitoring, local/HR records, & coworker/supervisor reporting

- Policies and technologies are necessary but not sufficient. Effective training, personalization and organizational climate are key to managing risk

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PERSEREC Customers and Stakeholders

PERSEREC's customers and stakeholders include policy-makers at:

- OUSD(P&R), e.g., Civilian & Military Personnel Policy • Sexual Assault Prevention and Response Office • Defense Suicide Prevention Office
- OUSD(Intelligence), e.g., Security Policy and Oversight Directorate
- OUSD(Policy), e.g., foreign student vetting
- DoD component Personnel Security and CI policy offices
- DoD Joint Central Adjudication Facility

Outside of DoD, PERSEREC's customers/stakeholders include:

- Office of Director of National Intelligence—Federal Security Executive Agent
- Office of Personnel Management—Federal Suitability Executive Agent
- Others (e.g., DOE, DOS, DHS, CIA, FBI, OMB, GAO, PAC)

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Success Stories

Success = Implementation of PERSEREC recommendations and tools

- Production and revision of the National Adjudicative Guidelines specified in E.O. 12968
- Phased Periodic Reinvestigation (PPR) method for continuing TOP SECRET access eligibility
- Electronic adjudication ("eAdjudication") of clean SECRET cases
- Tools for evaluating the quality of investigations and adjudications
    - RAISE: Rapid Assessment of Incomplete Security Evaluations
    - RADAR: Review of Adjudication Documentation Accuracy and Rationales
- Automated Continuous Evaluation System (ACES) for clearances holders
- Tools for security and intel professionals (e.g., "Adjudication Desk Reference," "Customizable Security Guide," and "Insider Risk Evaluation and Audit Tool")
- Espionage trend analyses (e.g., "Changes in Espionage by Americans 1947-2007")
- DIRE: "Dispositional Indicators of Risk Exposure" [DIRE] tool for assessing personality characteristics that are security and safety risks
- DoD adjudicator certification standards and procedures

Examples: The PPR and eAdjudication have saved the DoD more than **$250M**

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More Information and Contact

Selected reports, products and additional information are available on our website:
http://www.dhra.mil/perserec/

Or by contacting PERSEREC:

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Using Big Data to Study and Improve Military Health and Manpower Management

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My Research Area

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- Linking large scale databases to address economic issues related to health:
  - Economic analysis of mental health issues in the US military.
  - Evaluating system-level changes in the health care markets and their effects on provider behaviors and patient care
  - Public health infrastructure and population health outcomes

Example 1: Evaluating PTSD

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- Evaluating GWOT's effects on PTSD incidences
  - » What are the rates of PTSD among all active duty enlisted personnel and how do the rates differ by service and deployment location?
  - » How do deployment location and length of deployment affect the probability of being diagnosed with PTSD?

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Background

- Post-traumatic stress disorder (PTSD) has risen steadily since the start of GWOT.
- Understanding the risk factors would allow focused preventative measures for those at a higher risk.
- Could aid planning optimal tour length and tour rotation to minimize the risks of developing PTSD.

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Data

- Defense Enrollment Eligibility Reporting System
  - Identify the active duty personnel population and obtain demographic and service information
- TRICARE
  - Standard Inpatient Data Record, Standard Ambulatory Data Record, Encounter Data.
  - Identify the date that PTSD was first diagnosed and related health information
- Contingency Tracking System
  - Identify OEF/OIF deployment characteristics and military occupational specialty (MOS) codes

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Outcome of Interest

- The dependent variable in our analysis is whether an enlisted person was diagnosed with PTSD anytime between 2001 and 2006
- Binary variable: =1 if the ICD-9 code of the principal diagnosis is 309.81

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Rate of PTSD By Deployment Location

Legend: ■ Not deployed under OEF/OIF ■ Afghanistan or Iraq ■ Other countries under OEF/OIF
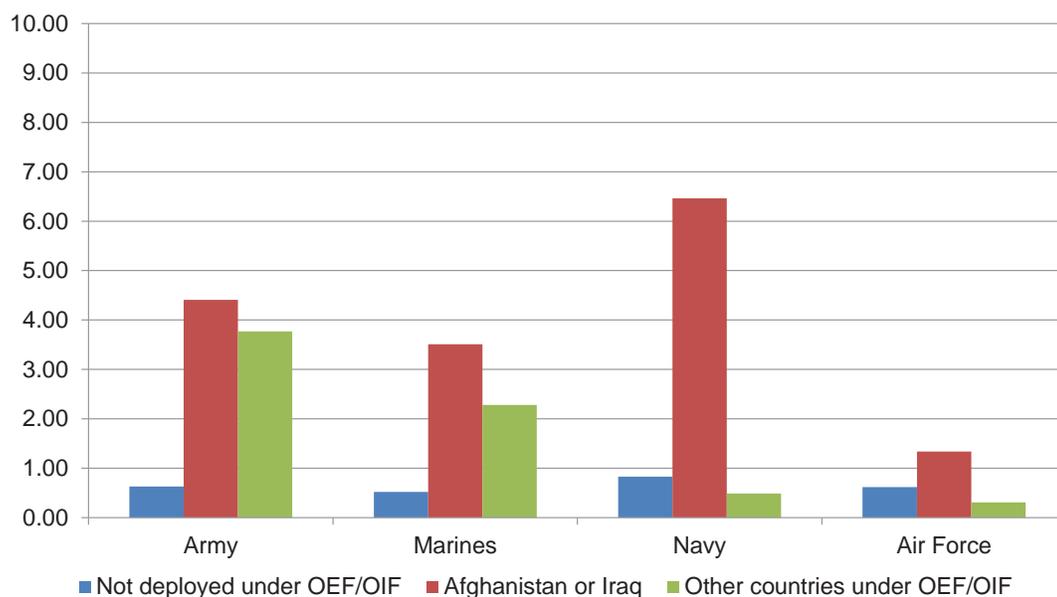
Logistic Regression Results: Odds Ratio of PTSD By Location
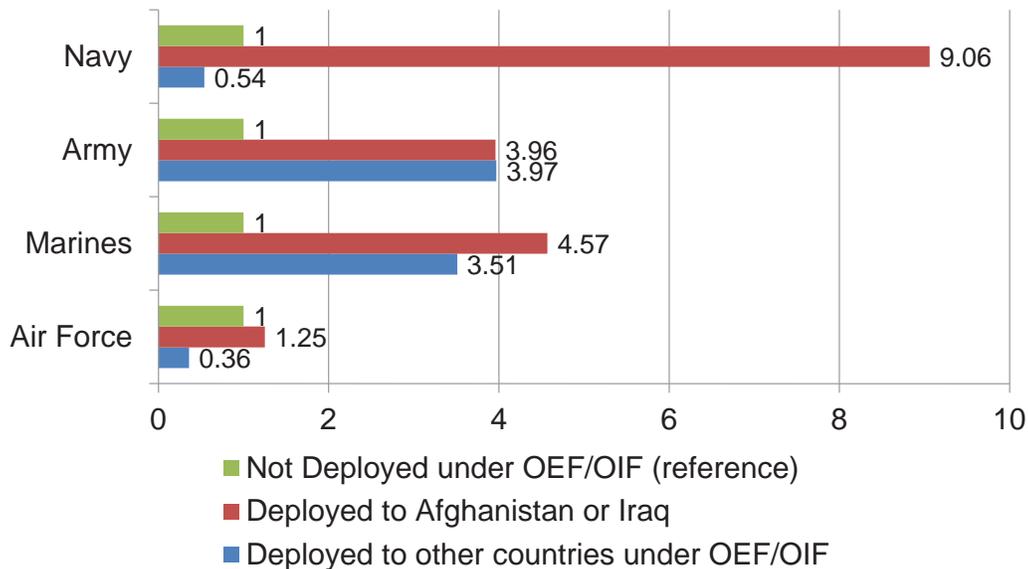
Challenges

- Extremely length DUA review
  - 2 years for initial approval, not possible to do timely research
  - Rule changes on yearly basis
- Linking critical database to capture complete medical history
  - Most likely miss more severe cases of PTSD because there is no linkage to VA
  - Many critical health related databases do not share common scrambled ID

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Example 2: Spatial Analysis of Public Health Infrastructure

- Evaluating Emergency Care Access at the Population Level
- Critical in Disaster Management

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Data

- Use Census data at the ZIP code level
- Combine with survey and administrative data to capture emergency department locations
- Link Census with individual patient records to analyze changes in ED access on patient outcomes.
- Take advantage of Geographical Information System (GIS) to create a heat map.

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Figure. Distribution of ED Access Change on US Map
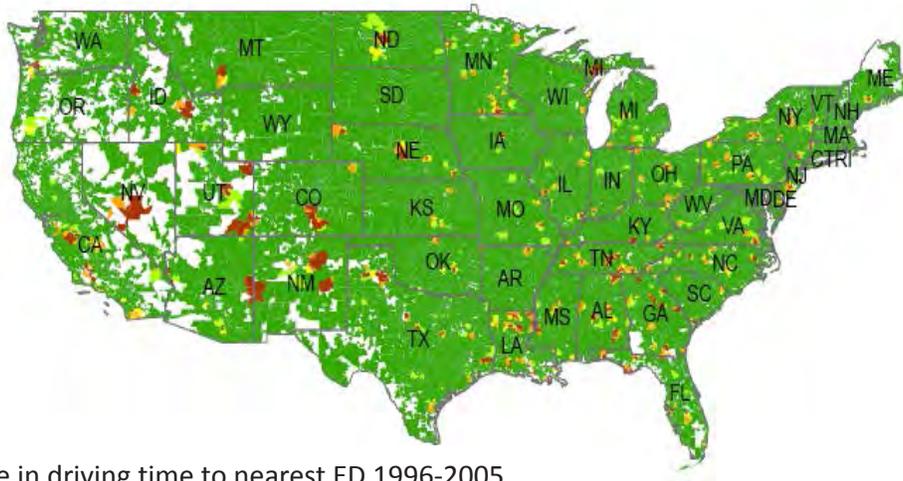
Change in driving time to nearest ED 1996-2005

☐	No Data	☐ (yellow)	Up to 10min increase
☐ (dark green)	No increase in driving time	☐ (orange)	Up to 30min increase
☐ (green)	Up to 5min increase	☐ (brown)	More than 30min increase

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Applications in Manpower Management

- Use Census and heat map to analyze
  - Geographical variation in civilian labor market
  - Recruitment potentials and attrition likelihood
  - More targeted recruitment tools based on micro area's demographic composition.

Challenges

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- Geocoding data require special license
- Time consuming if doing spatial analysis for large area
- Subject to nontrivial measurement errors using available map engine (depending on time of the day that the search is performed)

Example 3: Analyzing the Cost of Poor Psychological Health

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- Estimating costs to the military that can be attributed to psychological health issues.
  - Due to attrition at various stages in the first term
  - Due to increased usage of medical care while in theater
  - Due to increased likelihood of costly mental health conditions post deployment, such as PTSD.

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Data

- Psychological profile (Army specific)
  - Global Assessment Test scores
- DMDC: Personnel records
- DMDC: Detailed separation information
- DMDC: Deployed information
  - CTS
- AFHSC: Combat exposure during deployment
  - PDHA, PDHRA
- Health records

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Challenges

- Impossible to obtain complete medical history—no agreement across agencies to have a common research resource
- Even within administrative data, lots of unstructured information that needs processing
  - PHDA specialty field is text based.
- Privacy issue vs. quality of research product

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Example 4: Analyzing stages of suicide behaviors in the military

- Identify risk factors at different stages of suicides across different services
  - Suicide ideation, suicide attempts, suicide deaths
  - examining stressful life events, mental health histories, quality of recruits
- Inform suicide prevent effort on high risk groups for better or more targeted interventions
- Big data especially necessary for research on rare events, such as suicides

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Data

- CDC: National death index
  - Track deaths even after person left military
- DMDC: master personnel file from 2001-20011; CTS
- TRICARE: clinical encounters to identify mental health history

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Challenges

- Administrative hurdle to combine database
- Missing information from civilian life and VA, except for death
  - especially for reserve component
  - Classical measurement errors

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Model

- Dependent variable
  - Death as a result of suicide
- Statistical model (survival analysis)
  - Cox proportional hazard model
- Risk factors
  - Mental health history
  - Stressful life events (demotion, divorce)
  - Recruit quality (moral waivers, test scores)
  - Deployment (during and after)

Crude suicide trend
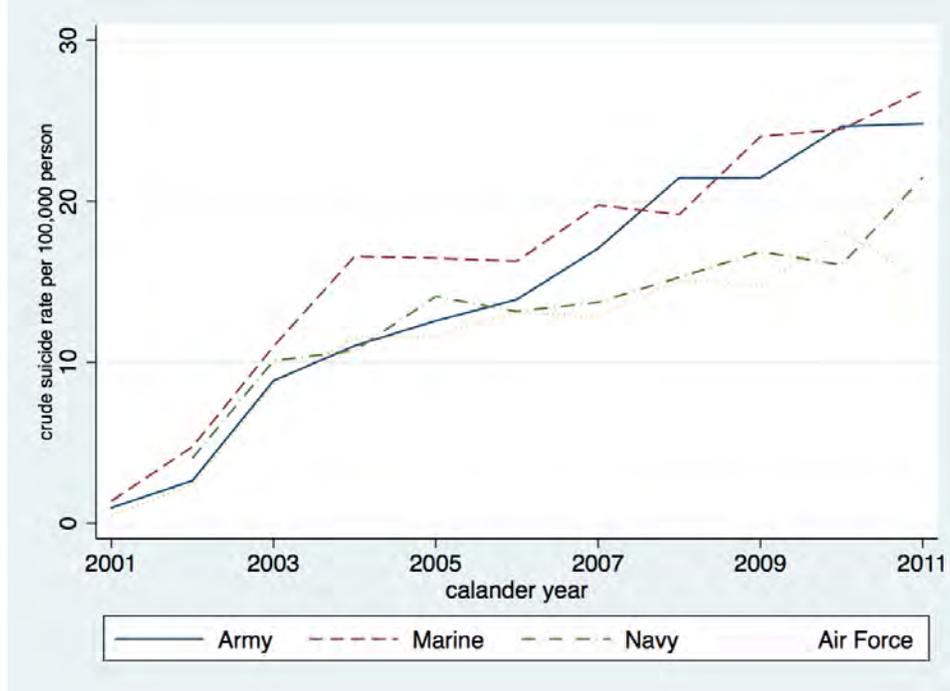
Multivariate results on hazard of suicides
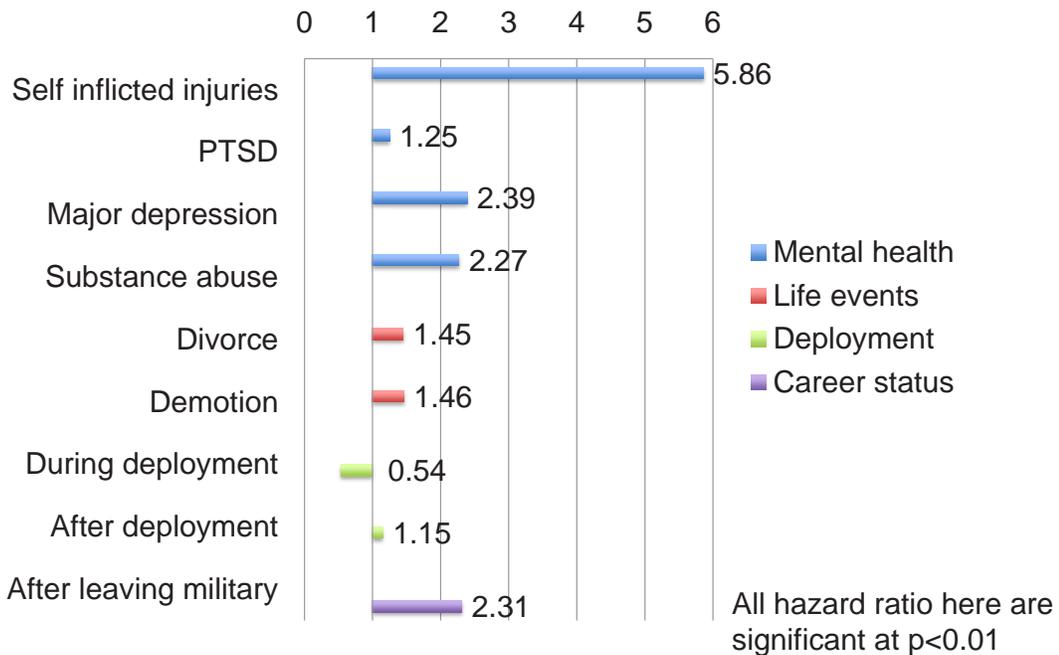
Editorial

The U.S. Army Person-Event Data Environment: A Military–Civilian Big Data Enterprise

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Abstract

This report describes a groundbreaking military–civilian collaboration that benefits from an Army and Department of Defense (DoD) big data business intelligence platform called the Person-Event Data Environment (PDE). The PDE is a consolidated data repository that contains unclassified but sensitive manpower, training, financial, health, and medical records covering U.S. Army personnel (Active Duty, Reserve, and National Guard), civilian contractors, and military dependents. These unique data assets provide a veridical timeline capturing each soldier's military experience from entry to separation from the armed forces. The PDE was designed to afford unprecedented cost-efficiencies by bringing researchers and military scientists to a single computerized repository rather than porting vast data resources to individual laboratories. With funding from the Robert Wood Johnson Foundation, researchers from the University of Pennsylvania Positive Psychology Center joined forces with the U.S. Army Research Facilitation Laboratory, forming the scientific backbone of the military–civilian collaboration. This unparalleled opportunity was necessitated by a growing need to learn more about relations between psychological and health assets and health outcomes, including healthcare utilization and costs—issues of major importance for both military and civilian population health. The PDE represents more than 100 times the population size and many times the number of linked variables covered by the nation's leading sources of population health data (e.g., the National Health and Nutrition Examination Survey). Following extensive Army vetting procedures, civilian researchers can mine the PDE's trove of information using a suite of statistical packages made available in a Citrix Virtual Desktop. A SharePoint collaboration and governance management environment ensures user compliance with federal and DoD regulations concerning human subjects' protections and also provides a secure portal for multisite collaborations. Taking similarities and differences between military and civilian populations into account, PDE studies can provide much more detailed insight into health-related questions of broad societal concern. Finding ways to make the rich repository of digitized information in the PDE available through military–civilian collaboration can help solve critical medical and behavioral issues affecting the health and well-being of our nations' military and civilian populations.

Key words: electronic medical records; epidemiology; military; Person-Event Data Environment; physical health; population health; soldier; well-being

Introduction to the Person-Event Data Environment

The U.S. military has compiled a vast, secure computer repository of digitized information that documents the full breadth of a service member's military experience. Modern record keeping of military experience—in computerized formats easily usable today—began in the late 1990s. Since then, the U.S. military has collected extensive service member information obtained from entrance exams (e.g., personality and aptitude), required annual physicals, pre- and post-deployment health assessments, medical and hospitalization treatment records, and periodic assessments of psychological functioning, job

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performance, and military service qualification tests. The Person-Event Data Environment (PDE) business intelligence platform is a cloud-based virtual data repository for housing this digitized information. The PDE was established by the U.S. Department of the Army to facilitate research and analysis of issues and policies that affect the military workforce—Active Duty, Reserve, National Guard, civilians, and contractors. Though research and analysis projects from all services are emerging in the PDE now, the system is primarily used by the Army, and therefore we will limit the current discussion to that service. In its current form, the PDE informs senior military and civilian government leadership and policy makers about a variety of human resource-related issues, including the health of the force, training program efficacy, and return on investment, selection, and attrition. Furthermore, the PDE addresses a critical need as the Army modernizes and engages novel behavioral health interventions to improve Army military service. Researchers can use the PDE to conduct program evaluation, cost-effectively pooling military data assets across numerous facets of a study. Findings of such studies can be highly informative for policy development and evaluation regarding health and healthcare issues in the civilian population as well.

Functionally, the PDE serves two central purposes: (1) acquire, integrate, and securely store data for Army-approved research projects, and (2) provide a secure, virtual workspace where approved researchers can access "sensitive" although unclassified Army military service, performance, manpower, and health data. Figure 1 depicts a computer screenshot of the PDE SharePoint environment, which serves as both a governance portal and a collaborative environment for researchers (both within and across projects).

The PDE was initiated in 2006 as a business intelligence platform with an initial goal emphasizing command workforce, critical skill resource assessment, and outcome studies. Other government organizations soon recognized the power of a collaborative "commons" offered by the PDE technology. Specifically, the Defense Manpower Data Center began contributing data and computational resources to the PDE, and other armed forces branches began approaching the Army for PDE access. Following its rapid expansion and utilization, the Army Human Research Protections Office (AHRPO) and the U.S. Army Public Health Command were recruited to help configure standardized governance procedures to ensure human subjects' protection and regulatory oversight. The Army has applied additional resources through the Research Facilitation Laboratory, a behavioral science unit created to help the commons repurpose PDE data for operational studies and to promote scientific advancement.

Opportunity

In 2011, the Robert Wood Johnson Foundation (RWJF) funded the University of Pennsylvania's Positive Psychology Center to create a sustainable military–civilian collaboration accessing PDE data assets. This *proof-of-concept* research project examines the role that psychological health assets (e.g., optimism and positive affect)
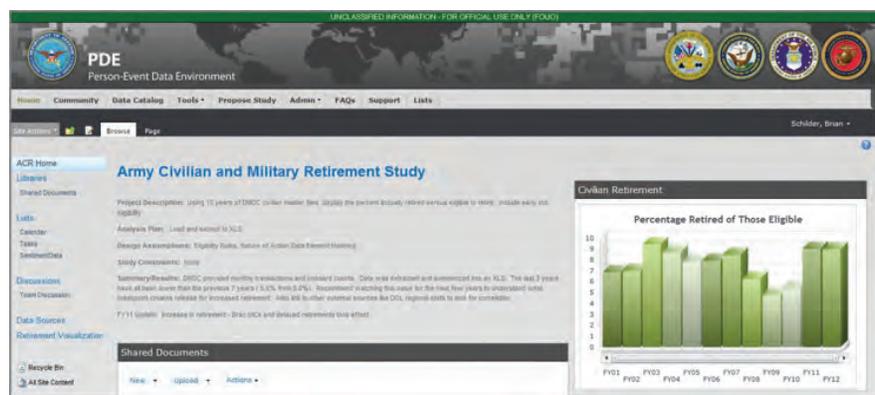
FIG. 1. Screenshot of the PDE SharePoint environment. Source: Reproduced with permission from the U.S. Department of the Army, Army Analytics Group, 2014.

play in various health outcomes and healthcare utilization.[1–3] The project research team consists of a steering committee involving both Army and academic scholars, a cadre of senior scientists, and project management on-site accessing data through secure Army portals. Collaboration between all these components has resulted in eight fundamental areas of scholarly inquiry: (1) mental health, (2) physical health outcomes (e.g., cardiovascular functioning), (3) attrition, (4) substance use, (5) deployment-related events (i.e., trauma and concussion-related traumatic brain injuries), (6) post-traumatic stress disorder, (7) criminal behavior, and (8) healthcare costs.

In addition to cost-efficiencies, the PDE provides useful alternatives to the many pressing challenges faced by behavioral and medical researchers. For one thing, national and longitudinal research studies are logistically cumbersome, relatively expensive, and time-consuming. Soldiers provide a vast amount of behavioral and medical data on a routine basis as part of regular monitoring, as well as ongoing personnel and manpower data for practical force considerations. The Army can use this information to detect mission-critical issues, including the preparedness of its forces, their suitability for combat, and the effects of Army service on soldier functioning, including manifestations of prolonged deployment.

The ability to analyze Army data on soldier performance under one computational "roof" is attractive for several other reasons. Cohorts are often limited to a particular geographic region or specific occupational group (e.g., nurses), limiting their overall generalizability. Soldiers, on the other hand, ostensibly come from all walks of life, from geographically diverse neighborhoods, represent a heterogeneous sociodemographic profile, and present for medical care with different behavioral and health maladies influenced by many factors, including family history, gender, race, age, occupation, and training regimen, to name a few. This variety alone provides a veritable-rich environment for studying human behavior and aggregates this information at the population level. A good deal of the knowledge gained from using the PDE will find application in comparable populations and, as a result, the collaborations will provide a cost-effective means through which scientists can create lasting solutions to new and continuing health problems.

Other opportunities arise from the continued monitoring of soldier performance, health, and psychosocial functioning. Disease registries typically recruit participants after a medical condition or ailment of interest is present, obscuring prospective markers with etiologic

importance. Also, stressful or traumatic events are difficult to anticipate and, as a result, are often studied only retrospectively, resulting in inconsistent data collection efforts. Data stored in the PDE provide a plethora of information from initial accession through eventual separation from the Army, providing a means to monitor soldier functioning from emerging adulthood through later life for career soldiers. A bulk of the Army is relatively young (17–30 is the largest single demographic group and in 2014 constituted 64% of Active Duty soldiers) providing a unique trove of data that can inform social policy for years to come. From a life course perspective, this is a critical age group experiencing transition from adolescent to adult health, a point at which trends of unfavorable or continued favorable trajectories of adult health diverge. Policies for health promotion and disease prevention are therefore especially likely to be informed by new knowledge generated by investigations based on this unique data resource.

How Big Is Big?: Data Complexity and Survey Frequency

One pressing question is whether the Army PDE is really managing big data in the usual sense. The census of Army strength on an annual basis hover around 1.2 million soldiers including all three major components (Active Duty, Reserve, and National Guard). The PDE, which maintains an ongoing cumulative record of military personnel, is several times this size due to retention of some and constant recruitment of new members to the population. By any stretch of the imagination, and when compared to federal government data bases (e.g., Treasury Department, Social Security, and Labor Statistics), social networking sites (e.g., Twitter, Google, and Facebook), or commercial data processors of financial information (e.g., Heartland Payment Systems or Global Payment Systems), the PDE is not necessarily large. However, additional considerations perhaps qualify Army data as "big." For one thing, soldiers' data in the PDE is longitudinal following their military service from point of entry to discharge or normal termination (the latter including injury or death). Owing to the digitization of Army records from 1990 forward, this means that several million soldiers can be examined longitudinally in the PDE. Second, as we outline below, soldiers provide a wealth of data on many different facets of their training, health, and functioning. The health records alone include a vast array of information pertaining to doctor's visits, hospitalization, medication dispensed, and associated insurance data recording, among other items, the medical

reason for the visit, the diagnosis reported for billing purposes, and the cost of the visit to the medical treatment facility. Thus, the PDE can house upward of 10,000 or more variables collected on a single soldier accumulated through the duration of military service. This contrasts with the more limited financial and address information that commercial data processors possess on any particular individual. Finally, soldiers operate as individuals embedded in units as small as squads and as large as brigades or divisions. This "unit of observation" results in nested or hierarchically clustered data, owing to the similarity of soldier behavior within as opposed to across different intact social units. Nested data provide an opportunity to examine social influence processes and also whether certain behavioral training programs or leadership styles are more or less beneficial based on aggregate soldier profiles.

Another data complexity arises given the great variability when soldiers enter and leave the Army, deploy, and receive routine and nonroutine health assessments. To illustrate, PDE data assets consist of assessments gathered routinely (e.g., weapons qualifications), on a periodic basis (e.g., annual health assessments), as well as event-based (e.g., pre- and post-deployment health assessments). Although periodic health assessments (PHAs; annual physicals) are typically evenly spaced, routine assessments can be delayed based on the timing, location, and duration of a soldier's deployment. The lack of equal time intervals in the spacing between assessments can be methodologically challenging, particularly for researchers invested in modeling developmental change using time-structured assessments, although these challenges can be addressed statistically using alternative random coefficient modeling procedures.

Imposition of Sample Selection and Gating Criteria

The tremendous variability that exists in the timing of military health and behavioral assessments necessitates careful consideration of how to manage such large amounts of complex data. One solution has been to create replicable "gating criteria" that delimit samples. These take shape as Oracle Structured Query Language (SQL) queries to establish precisely which soldiers meet the time (during which military-related events may transpire) and assessment windows (which assessments are mandatory during a specified time frame). There are also service criteria, for instance, the precise component of service (Active Duty, Reserve, or National Guard) and whether a soldier deployed to Iraq or Afghanistan or some other region or combat zone. The ultimate objective of gating is to create a uniquely definable "cohort." These cohorts can then be examined using traditional longitudinal data mining approaches, including survival analysis, growth modeling, fixed-effect structural equation modeling, and ordinary least squares regression to ascertain effects over time. The gating criteria offer a way of managing the variability that characterizes soldier service records, while at the same time offering a rigorous means to detect periodicity and regularity often encountered with longitudinal data.

To illustrate, a recent study employed SQL queries to elucidate the contribution of deployment combat stress to alcohol consumption, medical symptoms, and a positive screen for posttraumatic stress disorder (PTSD). These are important areas for scientific inquiry as well as major costs drivers for the Army. Understanding these cost drivers can be explored through intelligent querying of the database, which involves specifying selective gating criteria that reveal interesting data patterns related to health and cost for such criteria.

As an example, the following gating criteria were applied sequentially to the database: (1) deployed between September 2012 and December 2014 ($n = 154,340$), (2) completed the required pre- and post-deployment health assessments ($n = 46,176$), (3) had taken a self-report survey assessing psychosocial functioning roughly a year prior to deployment ($n = 14,294$), and (4) were between the ages of 18 and 30 ($n = 10,058$). This netted a cohort of soldiers that had deployed during a specific time frame, were young adults, and had completed the required psychosocial and health assessments. The study was framed by learned helplessness theory, which states that depression and related mental illnesses result from perceived absence of control over the outcome of a situation and an exaggerated sense of helplessness or negativity.[*] In this study, an attributional tendency termed "negative explanatory style" was assessed using a self-report measure of "catastrophic thinking," which can be thought of as ruminating about worst case outcomes.[†]

To test linkages between combat stress and poor health outcomes among the panel soldiers we assessed the relative contribution of deployment combat-related stress, catastrophic thinking, and three demographic control measures (age, gender, and rank). Soldiers

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[*]http://en.wikipedia.org/wiki/Learned_helplessness
[†]https://www.psychologytoday.com/blog/in-the-face-adversity/201103/catastrophic-thinking

who reported any one of seven combat-related stressors (e.g., "encountered dead bodies," "discharged a weapon," and experienced a blast") were coded accordingly. A measure of catastrophic thinking was obtained from a self-awareness tool soldiers take annually. Sample items included "when bad things happen to be, I expect more bad things to happen" and "when bad things happen to me, I cannot stop thinking about how much worse things will get," which were scored on a five-point Likert-type scale.

Outcome assessments were based on a 17-item PTSD symptom index[4] (cut-point of 30 or more indicated 'at risk'), a three-item alcohol misuse screener[5] (ranging from 0–12), and a 29-item index of general health concerns (ranging from 0–29). Controlling for age, rank, and gender the findings indicated that combat-related stress (trauma) was significantly related to a positive screen for PTSD (odds ratio [OR] = 3.11, 95% confidence interval [CI] = 2.37–4.08, $p < 0.0001$), alcohol misuse ($\beta = 0.07$, $p < 0.0001$), and more health concerns ($\beta = 0.21$, $p < 0.0001$), respectively. Catastrophic thinking also placed soldiers at risk for all three outcomes (PTSD: OR = 1.18, 95% CI = 1.02–1.37, $p < .05$; alcohol misuse: $\beta = 0.03$, $p < .01$; and health concerns: $\beta = .07$, $p < .0001$). Structured queries like the one used here: 1) reinforce the necessity of modeling heterogeneous measures of military experiences; and 2) highlight the potential need for tailoring current health promotion programs to address possible subgroup differences in military-specific outcomes.

Measures

From their initial point of entry into the Army (accession), soldiers provide continued (semiroutine) information on their health, psychological functioning, vocational aptitude, personality, fitness, and training qualification. There are ancillary data sources that track mandatory officer evaluations, military and civilian education, and soldiers who seek alternative training through special operations training and aviation schools. This wealth of data can provide a composite picture of a soldier's life and be used for operational studies or research purposes. Table 1 includes an overview of several key Army health data assets that are fundamental to the RWJF military–civilian collaboration. The table illustrates the basic content for each asset, the primary source of the health data (e.g., self-rated reports), and the administration sequence for each assessment (periodic or event-based).

As an illustration of how resourceful the PDE can be, we now present a detailed overview of one of the health

data assets, the PHA. Active component and select Reserve personnel are required to receive an annual PHA. The PHA is a standardized preventive screening tool designed to improve the reporting and visibility of the individual medical readiness describing each soldier's physical ability to deploy. Specifically, this assessment consists of three integrated steps: (1) an online Health Risk Assessment (e.g., family history, medical conditions, and current medication use) with referrals made for laboratory studies and immunizations, (2) support staff review the personal medical information (e.g., height, weight, and medications), and (3) a healthcare provider reviews each soldier's statement of health, evaluates any required laboratory results, performs a medical symptom-focused exam, rates body system functioning using the medical physical profile serial qualification system, and provides referrals for additional medical services as indicated.

Over 600 data elements are collected during this three-step assessment process, approximately 107 of which contain administrative (e.g., "date PHA form approved") or personal information (e.g., soldier's telephone number). As we discuss in the following sections, personally identifying information can never be examined for research purposes. The health data in the PHA database can be categorized as follows: allergy information, 43 variables (e.g., reports allergy to iodine); behavioral health information, 43 variables (e.g., reports feeling down); clinical evaluation, 119 variables (e.g., diastolic blood pressure); overall health, 87 variables (e.g., soldier has chronic pain); family history, 115 variables (e.g., father had cancer); medications, 18 variables (e.g., "class of drug"); preventive health, 74 variables (e.g., frequency of alcohol use); and functional capacity, 18 variables (e.g., score for physical capacity or stamina). Across a five-year career, this represents over 2,500 soldier health data elements that can be gathered and made available to researchers as de-identified data. Even more impressive is the fact that these data elements can be merged with other longitudinal databases housed in the PDE, enabling researchers to examine contextual factors (e.g., psychosocial strengths, deployments, years of service, and job performance, to name a few) that may relate to health at specific points in time.

Utility of the PDE

Current use of the PDE generally falls into three categories: novel research, organizational analysis, and program evaluation. In terms of novel research, the PDE is

Table 1. Person-Event Data Environment health data assets

Database	Description of contents	Primary source	Admin.	Pop.
Deployment Health Assessments	Health before and after deployment (e.g., self-rated health, alcohol and tobacco use, PTSD, depression, combat exposure, injury and concussion risk, health concerns, major life stressors, Rx use, environmental and exposure concerns, suicide ideation, violence or potential for self-harm)	Self-rated & objective	Event-based	S
Digital Training Management System	Comprehensive training records (e.g., marksmanship training, predeployment training), physical fitness metrics (e.g., push-ups, sit-ups, two-mile run, participation in a weight control program)	Objective	Event-based & periodic	S
Drug & Alcohol Management Information System	Positive drug and alcohol screens (e.g., urinalysis, breathalyzer), referrals and enrollment in treatment, patient follow-up, and progress	Objective	Event-based	S
Electronic Physical Evaluation Board	Physical Evaluation Board key dates (e.g., date started, referral date, approval date, date placed on TDRL), disposition of the board, overall percentage of disability, description of condition	Objective	Event-based	S
Medical Data Repository	Electronic health records (e.g., appointment dates, Rx medications, procedures and surgeries, vitals [e.g., blood pressure], healthcare costs, pathology laboratory results)	Objective	Event-based	S, D
Periodic Health Assessment	Yearly physical assessments (e.g., overall health, clinical evaluation, medications, family history, behavioral health, preventive health, physical profile, deployability)	Self-rated & objective	Periodic	S
Social Security Admin. Death File	Death date, death verification code, last residence (state)	Objective	Event-based	S
ArmyFit—Global Assessment Tool	Psychological strengths (e.g., adaptability, positive/negative coping, catastrophizing, social engagement, optimism, meaning, character, depression, positive & negative affect, family satisfaction, family support, work engagement, friendship, loneliness, organizational trust), health, health-related behaviors (e.g., cigarette smoking)	Self-rated	Periodic	S, D, C
Theater Medical Data Store	Electronic health records during deployment (e.g., appointment dates, medications, procedures, injury type, illness diagnostic categories, symptoms, blood pressure, pulse rate, temperature)	Objective	Event-based	S

Admin., administration; C, DoD civilian; D, dependent; Pop., population; PTSD, posttraumatic stress disorder; Rx, prescription medication; S, soldier; TDRL, temporary disability retired list.

being used for a wide variety or research projects examining the health- and work-related behaviors of members of the military. For example, a recently published study using PDE data assets analyzed data from the Army's Global Assessment Tool (GAT) and found that high-performing soldiers tended to report relatively higher GAT scores on measures of psychosocial functioning (i.e., optimism), whereas soldiers with behavioral problems tended to have relatively lower GAT scores[6]; this study reinforced the practical utility of the GAT as a psychometric instrument. Other research studies in the PDE are underway now, including research designed to model military family resilience, feasibility studies for the use of social media data for suicide prevention, the development of risk algorithms

for a range of behavioral problems, and research examining how leadership behaviors can influence follower psychological health.

There are also questions about population cardiovascular health and the different approaches to investigating these important medical considerations that offer another example of the utility and significance of the PDE for conducting novel research. As previously stated, the Army is a large, racially and ethnically heterogeneous population with diverse age groups from as young as 17 through later middle life (ages 60–70). As such, the extensive inventory of personal-level data on cardiovascular health status, health behaviors, psychological factors, and social determinants of health provides an exceptionally rich existing data set

regarding relations among these health factors and potential strategies for cardiovascular disease prevention. Record linkage for individuals throughout their military careers provides opportunities for longitudinal as well as cross-sectional examination of these relationships. Health-related policy changes within the Army can be proposed, developed, implemented, and evaluated through ongoing investigations with these data. The applicability of findings to the civilian population and the opportunity to make direct statistical comparisons to the civilian population add further value to this exceptional health data asset.

For example, one line of effort has recently examined PHA data in the PDE to contrast measures of health among Army Active Duty, Reserve, and National Guard soldiers, and civilians from the National Health and Nutrition Examination Survey. Appendix I provides a case study that showcases comparisons on several health metrics that are major cost drivers for both the Army and general population.

Additionally, the PDE is used to perform a range of organizational analyses to answer questions posed by the Department of Defense's (DoD's) senior leadership as well as members of the U.S. Congress. The PDE was recently used to respond to inquiries from Congress about demographic characteristics of service members within the DoD. In addition, the PDE has great utility for the development and pilot testing of new standardized assessment forms and behavioral instruments. Researchers can follow standard psychometric procedures and examine different forms of validity, including concurrent and factorial (using existing data), predictive (with prospective data), and convergent and discriminant (with other PDE data assets).

Finally, the PDE is used to perform large-scale program evaluation on a range of DoD-related military programs. For example, there have been calls in the literature for more rigorous evaluation of the Army's Comprehensive Soldier & Family Fitness (CSF2) program—a psychological health and resilience training program.[7,8] The PDE has made it possible to securely bring together data on a range of soldier outcomes, begin evaluating the CSF2 Master Resilience Training (MRT) program, and respond to these clarion calls with evidence-based findings. Specifically, researchers have examined longitudinally participation in the MRT program and subsequent ratings of psychosocial strengths and assets.[9] Follow-up work examined associations between participation in the MRT program and its effect on the prevalence of diagnoses for mental

health or substance abuse problems.[10] Subsequent research will extend to other outcomes, including health ratings, job performance, and healthcare costs, to name a few. The PDE has also been used to evaluate other Army programs, including the Army Surgeon General's Performance Triad—a program designed to promote healthy sleep, physical activity, and nutrition behaviors in soldiers. For researchers in the PDE evaluating military programs using observational studies or quasi-experimental designs, use of the propensity score method (which assesses the likelihood of being assigned to the treatment group based solely on one's demographic or covariate information) strengthens the ability to make causal inferences even in the absence of a randomized control group.[11]

Compliance with Human Subjects' Protections

Extensive measures are taken to protect the confidentiality and personal identity of soldiers whose information is part of the digitized resources housed in the PDE. As part of protecting personally identifying information (PII), social security numbers undergo a two-step transformation and encoding process, which results in the assignment of a random 12-character alphanumeric "key" to each soldier. Data in the PDE can then be merged and linked via the randomly generated "keys" in order to create linked files from multiple databases and time points in support of Army- and DoD-approved research. The governance process that creates identification keys relies on physically and logically separate computer systems with secure Army and DoD firewalls using a VPN connection. In addition, personnel responsible for the extraction, transfer, and load of de-identified data are federally approved contractors who undergo extensive Health Insurance Portability and Accountability Act (HIPAA) training and also work in a secure environment.

Additional transformations for limited data sets containing protected health information (PHI) include truncating birth dates so that only year or month and year are available. A soldier's unit identification code, rank, and pay grade are also transformed for PDE research studies. As outlined below, each transformation of PII is designed to reduce the risk of a soldier being re-identified by a researcher, while maintaining enough information for standard aggregate statistical analysis and longitudinal record linkage.

Accessing Medical and Health Data

Access to medical and health data is covered under the HIPAA (45 CFR Subpart 46, PL 104-191) and the

Privacy Act of 1974 (Pub. L. No. 93-579, and its subsequent amendments USC Sec. 552a, Title 5, Part I, Chapter 5, Subchapter II). Both statutes carefully delineate the safeguarding of PHI and the manner in which "limited data set" identifiers can be disclosed (e.g., birthdates are transformed to MMYYYY).

All preparation of personal health and medical data in the PDE must comport with the Standards of De-Identification of Protected Health Information (Section 164.514[b][2] of the 1974 Privacy Act). The latter requirement involves establishing compliance with either the safe harbor or the expert determination method. Both methods ensure compliance with federal standards that essentially mitigate privacy risks pertaining to sharing PHI between covered entities (i.e., health insurers) and outside parties. The former procedure requires removal of 18 limited data set identifiers (e.g., name, address, e-mail, driver license, or other unique identifiers) from PHI in order to reduce the potential of "re-identification." The latter method relies on scientifically valid statistical audit procedures designed to evaluate the potential risk for re-identification (disclosure) given the proposed de-identification procedures.

Projects deemed research involving human subjects must also undergo an external scientific review using an Institutional Review Board and vetting by the AHRPO, which provides regulatory oversight for human subjects' protection of soldiers. All of these assurances and regulatory requirements are detailed in DoD Information (3216.02 "Protection of Human Subjects and Adherence to Ethical Standards in DoD-Supported Research") and Department of the Army (e.g., AR 70-25 "Use of Volunteers as Subjects of Research") guidelines. Applications for AHRPO human subjects and regulatory approval rely on the Force Health Protection and Readiness IRBNet portal, which is part of the Defense Medical Research Network. The Medical Research and Materiel Command website provides documentation of the Army procedures and applicable DoD regulatory requirements for human subjects' protection.

Conclusions

The RWJF military–civilian collaboration paves the way to methodically and incrementally open the PDE access aperture over time, thereby melding the enormous data assets of the Army with top research scientists from private commercial ventures and university-based settings. This scale-up requires blending the needs of researchers with the operational features of the PDE, all

the while ensuring the protection and confidentiality of personal and health information obtained from the individuals tasked with defending our country. The PDE offers an unprecedented resource to the scientific community, and it is quickly becoming the most extensive collection of digitized information on this important population or any other population we know of, given its tremendous breadth and depth.

In addition, the PDE is also moving in the direction of creating metadata resources to document the various DoD and Army data assets. This will include archived institutional history that describes the evolution of soldier assessment forms, version and content changes in surveys, data management concerns (e.g., variable coding and transformation), and details on data collection methods and parameters describing test administration. Future SharePoint capabilities will enable members of the PDE research community to record comments on data assets and their elements (e.g., indicate whether data fields are incomplete or have different values than expected). This information will prove quite valuable to subsequent researchers and will help build a more efficient "commons" research process. The PDE can also draw upon resources provided by a DoD Metadata Registry, managed by the Defense Information Systems Agency, a web-based repository that promotes interoperability and reuse of computer technology (e.g., data models, symbologies, transformations, and schemas) among military department and defense agencies.

What the Future Holds

Given its relatively recent inception, the PDE has yet to reach full operational capability. Rapid growth of the PDE requiring greater bandwidth, procurement of sufficient "seat" licenses for commercial statistical packages, and the computing power required to manage and analyze large complex data structures currently limit the number of users the PDE can host. Resolving these bandwidth and related operational limitations will be part of getting the PDE to full operational capability. There is also an effort underway to "automate" much of the governance of the PDE, including security procedures for vetting end users, conducting background checks, and ensuring that study research goals are compliant with data use agreements. Every study in the PDE has to maintain current documentation of individual researchers' human subjects' protections compliance, adherence to PDE governance, and DoD Information Assurance certification. As essential as this process is for operational logistics, it can also

be cumbersome. In addition, data assets are not released unless checked manually to ensure release comports with Army Data Use Agreements and, in the case of medical data, meets the requirements specified in Data Sharing Agreements. This process is crucial to maintaining soldier confidentiality as well as regulatory compliance. Furthermore, the Army is also undergoing rapid changes in the types of platforms used to gather soldier data. As an example, a new online platform "ArmyFit" is now gathering data on soldier (and spouse) fitness, including nutritional information, sleep, and physical exercise. This is part of the Army Resilience Directorate's mandate to include emotional, social, spiritual, family, and physical fitness dimensions as part of routine assessments of soldier functioning. The advent of new web-accessible platforms collecting routine information on almost 50,000 soldiers each month means new soldier data (with unique coding formats) are constantly streaming into the PDE, broadening the capability of researchers to track emerging epidemiological trends.

We specifically note that the military–civilian collaboration will reap untold opportunities for researchers, who will gain access to unique and very extensive, prospective data on a very large population of Army soldiers. This will enable them to examine population-based trends in a wide range of health-related behaviors and conditions with important implications for society at large. Likewise, the Army will benefit from the expertise of leading behavioral and medical scientists interested in measuring and improving soldier performance and health, with insights of great potential value for population health more generally.

Author Disclosure Statement

The authors had no conflicts of interest with respect to the authorship or the publication of this article. The University of Pennsylvania has a proprietary interest in the Master Resilience Training (MRT) program. Loryana L. Vie, Lawrence M. Scheier, Tiffany E. Ho, and Martin E.P. Seligman did not analyze MRT data in the PDE or take part in discussions of intervention data related to the MRT program. Paul B. Lester is the Federal Government Sponsor for research activities in the PDE. He provides governance oversight as well as technical assistance obtaining various U.S. Army data assets, including the GAT data from the ArmyFit platform. The views expressed in this article are those of the authors and do not reflect the official policy or position of the Department of the Army, Department of Defense, or the U.S. government.

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Abbreviations Used	
AHRPO	Army Human Research Protections Office
CSF2	Comprehensive Soldier & Family Fitness
DoD	Department of Defense
GAT	Global Assessment Tool
HIPAA	Health Insurance Portability and Accountability Act
MRT	Master Resilience Training
PDE	Person-Event Data Environment
PHA	Periodic Health Assessment
PHI	protected health information
PII	personally identifying information
RWJF	Robert Wood Johnson Foundation
SQL	Structured Query Language

(Appendix follows→)

Appendix I: Case Study

Below we present one example of how Person-Event Data Environment (PDE) data can be used to generate a "report card" on several major cost drivers for the military as well as the U.S. civilian population. In this project, researchers from the Robert Wood Johnson Foundation military–civilian collaboration contrasted five metrics obtained from Active Duty and Reserve/National Guard soldiers with data from the 2012 National Health and Nutrition Examination Survey (NHANES).[A1] The NHANES is one of several nationally representative general population studies that provide valid and reliable measures of health and psychosocial functioning in the United States, and it represents the largest ongoing individual-level health examination survey (other examples include the Behavioral Risk Factor Surveillance System[A2] or the Midlife in the United States Study[A3]).

The five metrics selected for illustration are heavy cigarette use (transforming number of cigarettes in the past 30 days into the equivalent of a pack or more: "21 or more cigarettes per day"); heavy alcohol consumption (three AUDIT-C[A4] items assessing alcohol frequency ["How often did you have a drink with alcohol?"], intensity ["How many drinks did you have on a typical day when you were drinking?"] and binge drinking ["How often did you have 6 or more drinks on one occasion?"]); depression (using the 9-item PHQ-9,[A5] a general population depression screener assessing depressed mood or irritability, decreased interest or pleasure, significant weight change or change in appetite, change in sleep, change in activity, fatigue or loss of energy, feelings of guilt or worthlessness, diminished concentration, and suicidal tendencies); physician care (seeing a medical practitioner over the past year); and hospitalization (whether the respondent had been hospitalized within the past year or, for soldiers, since their last annual Army physical).

Table A1 shows the demographic comparison between the Army and civilian samples. The sample size in the

Table A1. Demographic characteristics of military personnel and civilians (2012)

Characteristic	Active Duty soldiers (n = 265,525) n (%)	Reserve/National Guard soldiers[a] (n = 398,240) n (%)	Civilians[b] (n = 4,854) n (%)
Gender			
Male	224,767 (84.65)	327,074 (77.51)	2,403 (49.51)
Female	40,758 (15.35)	71,166 (17.87)	2,451 (50.49)
Age group, years			
17–29	150,700 (56.76)	209,745 (52.67)	1,441 (29.69)
30–39	78,125 (29.42)	95,467 (23.97)	963 (19.84)
40–49	33,312 (12.55)	70,044 (17.59)	899 (18.52)
50–65	3,388 (1.28)	22,989 (5.77)	1,551 (31.95)
Race/ethnicity			
Hispanic	28,553 (10.75)	40,239 (10.10)	1,062 (21.88)
White	157,773 (59.42)	268,861 (67.51)	1,566 (32.26)
Black	58,111 (21.89)	65,742 (16.51)	1,331 (27.42)
Asian	13,687 (5.15)	14,257 (3.58)	742 (15.29)
Other, including multiracial	7,401 (2.79)	9,133 (2.29)	153 (3.15)
Education			
No high school diploma	1,245 (0.47)	10,371 (2.63)	1,160 (23.90)
High school diploma or equivalent	195,187 (74.04)	286,588 (72.66)	1,013 (20.87)
Some college	11,941 (4.53)	17,671 (4.48)	1,491 (30.72)
College degree and higher	55,249 (20.96)	79,802 (20.23)	1,190 (24.52)
Marital status			
Never married	89,403 (33.68)	186,554 (46.88)	2,515 (57.12)
Married	159,616 (60.14)	182,438 (45.85)	1,136 (25.80)
Separated/divorced/widowed	16,397 (6.18)	28,932 (7.27)	752 (17.08)
Length of service (years)			
0–3	90,348 (34.03)	97,493 (24.48)	N/A
4–8	64,907 (24.44)	115,742 (29.06)	N/A
9–15	57,496 (21.65)	74,841 (18.79)	N/A
≥16	52,774 (19.88)	110,169 (27.66)	N/A

[a]Army Reserve and National Guard soldiers differ only in the source of their pay. (The National Guard receives pay compensation from the federal budget, but they are organized and run by the individual states. Army Reservists receive compensation directly from the federal budget.) Otherwise their standards of performance and required training programs are identical and both service branches can deploy if needed. Therefore, for the purpose of this article, these two groups were combined.
[b]Civilians are composed of a nationally representative sample from the NHANES (2011–2012).

Table A2. Adjusted and weighted* means and period prevalence for health metrics among military personnel and civilians (2012)

	Heavy cigarette use[†] (% yes)			Heavy alcohol consumption (AUDIT-C score)			Depression severity (PHQ-9 score)			Visited healthcare provider[††] (% yes)			Hospitalized[‡] (% yes)		
	AD	Res./NG	Civ.	AD	Res./NG	Civ.	AD	Res./NG	Civ.	AD	Res./NG	Civ.	AD	Res./NG	Civ.
Age															
17–29	3.25^a	3.57^b	0.40^c	2.11^a	1.94^a	2.96^b	1.38^a	0.95^b	3.33^c	29.88^a	25.35^b	80.35^c	11.64^a	8.21^b	8.37^c
30–39	4.82^a	5.81^b	1.88^c	2.32^a	2.14^a	2.97^b	2.41^a	1.90^a	4.03^b	48.34^a	37.25^b	74.63^c	16.60^a	10.30^b	10.01^c
40–49	7.08^a	8.64^a	4.06^b	$1.79^{a,b}$	1.66^a	2.54^b	$3.21^{a,b}$	2.52^a	4.10^b	61.96^a	48.48^b	83.14^c	19.27^a	12.06^b	9.84^c
50–65	7.77^a	9.62^a	3.04^b	1.10^a	1.11^a	1.81^a	3.08^a	2.13^a	3.78^a	71.84^a	56.36^b	87.08^c	21.64^a	14.71^b	10.39^c
Gender															
Male	4.22^a	5.34^a	3.44^b	2.49^a	2.33^a	3.40^b	1.50^a	0.99^b	2.96^c	37.26^a	30.79^b	75.54^c	12.96^a	8.37^b	6.71^c
Female	1.88^a	2.67^a	1.24^b	1.60^a	1.52^a	1.86^a	2.05^a	1.39^a	4.47^b	54.23^a	49.07^b	88.25^c	20.90^a	16.18^b	12.50^c
Race/ethnicity															
Hispanic	1.84^a	1.88^b	0.33^c	1.63^a	1.62^a	2.87^b	2.01^a	1.57^a	3.81^b	35.32^a	28.91^b	70.74^c	13.49^a	8.99^b	10.34^c
White	5.06^a	5.92^b	3.17^c	2.38^a	2.33^a	3.21^b	1.99^a	1.42^a	3.67^b	40.64^a	35.12^b	84.83^c	14.28^a	9.97^b	9.15^c
Black	1.71^a	1.60^a	0.66^b	1.93^a	1.93^a	2.72^b	2.27^a	1.87^a	3.67^b	40.46^a	34.43^b	83.58^c	14.61^a	9.92^b	12.85^c
Asian	1.93^a	2.62^b	0.14^c	2.29^a	2.15^a	1.83^a	1.27^a	0.76^a	2.50^b	36.74^a	26.85^b	78.99^c	12.64^a	7.33^b	5.39^c
Other	2.43^a	2.80^a	5.69^b	3.13^a	2.74^a	3.59^a	3.46^a	2.69^a	5.95^b	42.15^a	34.30^b	80.66^c	14.32^a	9.85^a	11.51^b
Education															
No HSD	5.73^a	4.20^b	5.62^c	1.83^a	1.85^a	2.84^a	3.86^a	5.56^a	2.47^a	34.38^a	26.69^b	72.76^c	14.25^a	8.10^b	12.97^c
HSD or equiv.	4.04^a	5.05^a	1.70^c	1.92^a	1.76^a	2.64^b	2.27^a	1.50^b	4.07^c	36.18^a	30.91^b	78.39^c	13.88^a	9.44^b	8.83^c
Some college	3.77^a	5.08^a	2.41^b	1.91^a	1.63^a	2.67^a	1.90^a	1.33^a	3.43^a	51.52^a	42.75^b	82.55^c	16.66^a	11.56^b	9.39^c
College degree or greater	2.63^a	3.95^a	0.77^b	1.98^a	1.88^a	2.73^b	1.21^a	0.92^a	2.37^b	50.56^a	44.40^b	89.00^c	14.74^a	10.77^b	8.62^c
Marital status															
Never married	4.58^a	6.28^b	2.73^b	1.82^a	1.67^a	2.40^b	1.64^a	1.35^a	2.85^b	45.76^a	41.05^b	82.78^c	16.37^a	11.56^b	10.08^c
Married	2.80^a	3.57^b	1.04^c	1.45^a	1.41^a	2.91^b	1.60^a	1.32^a	4.57^b	27.01^a	25.61^b	79.22^c	9.39^a	7.60^b	8.28^c
Sep./Div./Widow	5.04^a	7.12^b	3.34^b	2.23^a	1.89^a	2.51^a	$2.35^{a,b}$	1.95^a	4.04^b	52.59^a	44.50^b	82.47^c	19.03^a	12.40^b	11.13^c

*Means are adjusted for all variables in the table. Means and period prevalence rates are weighted for NHANES complex sampling design and nonresponse. Comparisons were conducted using ANCOVA and logistic regression with linear combinations.

[†]Heavy cigarette smoking was assessed for those who currently smoke and is characterized by smoking at least 21 cigarettes a day.

[††]Soldiers were asked if they had seen a healthcare provider since their last military examination. Participants in NHANES were asked if they had seen a healthcare provider in the last year.

[‡]Soldiers were asked if they had been hospitalized or had surgery since their last military examination (55% had conducted their prior periodic health assessment within a 15-month window, 30% between up to 2 years, 13% between 2 and 3 years, and 2% beyond this window). Participants in NHANES were asked if they had been a patient in a hospital overnight in the past year.

[a,b,c,d]Raised superscript letters that are different indicate statistically significant differences ($p < 0.05$) of adjusted and weighted means. Same letters indicate no statistically significant differences in means. Tukey's honest significance test method was used to adjust for multiple comparisons and the increased probability of making false-positive type I errors.

AD, Active Duty soldiers; Civ., Civilian (NHANES); HSD, high school diploma; NHANES, National Health and Nutrition Examination Survey; Res./NG, Reserve and National Guard soldiers; Sep./Div./Widow, Separated/Divorced/Widowed.

Table A3. Multinomial logistic regression predicting group membership from demographic and health metrics

Metric	Active Duty vs. civilian[a]		Reserve/National Guard vs. civilian		Overall likelihood-ratio test[b]
	OR	CI	OR	CI	p
Age	0.918	(0.918–0.918)	0.948	(0.948–0.948)	<0.0001
Gender[c]	5.475	(5.412–5.539)	3.302	(3.273–3.331)	<0.0001
Race[c]	1.722	(1.708–1.737)	2.521	(2.504–2.539)	<0.0001
Education[c]	0.223	(0.221–0.225)	0.199	(0.198–0.201)	<0.0001
Marital status[c]	2.222	(2.203–2.242)	0.898	(0.891–0.904)	<0.0001
Cigarette use[d]	0.840	(0.835–0.844)	0.825	(0.821–0.829)	<0.0001
Heavy alcohol consumption	0.808	(0.807–0.810)	0.818	(0.817–0.819)	<0.0001
Depression severity	0.824	(0.822–0.826)	0.747	(0.745–0.749)	<0.0001
Seen healthcare provider[c]	0.228	(0.226–0.230)	0.175	(0.174–0.176)	<0.0001
Hospitalized[c]	4.768	(4.709–4.827)	3.150	(3.114–3.186)	<0.0001

[a]The multinomial regression simultaneously tests two logit models comparing one of the three groups against the reference category, which is the Civilian-NHANES group.
[b]The overall-likelihood test is analogous to testing whether or not all two separate ORs are significantly different from an OR of 1.0, which shows that the predictor does not efficiently discriminate group membership.
[c]Reference categories: female; non-white; high school diploma or less; non-married; did not see healthcare provider; not hospitalized.
[d]Variable transformed for this analysis to include nonsmokers (0=0 cigarettes/day, 1=≤10, 2=11–20, 3=21–30, 4=31+).
OR, odds ratio; CI, 95% confidence interval.

PDE is more than 100 times that of NHANES, most conspicuously so for race-ethnic groups other than white. The military population is younger, less highly educated, and more often married than the NHANES population sample. Notably, the Active Duty and Reserve/National Guard Soldier populations are generally quite similar demographically, supporting their potential pooling for many research purposes. Table A2 contains the results of group mean comparisons for the five metrics outlined above. A careful inspection shows that, adjusted for all other covariates in the model, soldiers consistently reported higher rates of heavy cigarette smoking compared to civilians, and this pattern held for gender, race, education, and marital status subgroups. Civilians reported heavier alcohol consumption, and this pattern held with few exceptions across the different subgroups (Asian and other race groups were not different). Up through age 40–49, higher rates of depression were reported by the civilian population. This pattern held across most of the demographic subgroups with the exception of less educated civilians who reported fewer symptoms. Active Duty and Reserve/National Guard soldiers were less likely to have visited a healthcare provider during the study period compared to civilians; Active Duty and Reserve/National Guard soldiers were more likely to have had surgery or been hospitalized in the last year compared to civilians; the latter may reflect the occupational risks experienced by this group.

Table A3 contains odds ratios and confidence intervals obtained from a multinomial logistic regression model. This model provides information on the relative effi-

ciency of the demographic and health-related predictors to differentiate group membership (reference group is the NHANES civilian population). Odds ratios less than 1.0 indicate higher likelihood of being a member of the civilian population. These results, adjusted for the other health behaviors and demographics, show a fairly consistent pattern reinforcing the lower rates of heavy alcohol consumption, depressive symptoms, and utilization of healthcare providers, and the much higher rates of being hospitalized among all soldiers compared to civilians. Overall, this illustration demonstrates the applicability of the PDE to questions of population health important for both the military and civilians. Analysis of epidemiologic patterns within the military can clearly inform health issues, such as those shown, for military health policy. Findings from studies of military samples can have tremendous bearing on the knowledge of civilian health, particularly when variable definitions are closely aligned and variables can be compared directly.

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Employer Data Matching Workgroup White Paper

January 2017

CONTENTS

EXECUTIVE SUMMARY[1]

Matching and reusing data on employers across Federal government agencies can have multiple and significant benefits, but it is currently very difficult to do. In order to begin to address these issues, OMB convened an interagency Employer Data Matching Workgroup. The Workgroup was co-chaired by senior members of the Census Bureau and the Bureau of Labor Statistics, and included over 40 expert Federal staff across 14 Agencies, representing 29 program, evaluation, or statistical offices. The scope of this project included examining current and potential future methods of matching data at multiple levels (establishment, and firm or enterprise), matching parent/child relationships within firms or enterprises, and capturing the dynamic nature of these relationships as they change over time. Key tasks included:

- Documenting issues Federal agencies face related to matching and uniquely identifying establishments and firms within and between data sets and over time;
- Identifying current successful strategies and/or policies used by Federal agencies to address matching challenges in the context of analyzing data, conducting evaluations, producing statistics, and identifying where additional strategies may be needed to further facilitate this work; and
- Summarizing potential future steps Federal agencies can take to improve the Federal government's ability to identify and match unique firms and establishments (and the relationship between the two) within and across Federal data sets, for the purposes of analyzing data, conducting evaluations, and producing statistics.

Matching Employer Data

Many Federal administrative and statistical activities require a matching process. In general, matching activities fall into one of the following fundamental types of activities:

- **Finding data on the same entity within a single data set:** agencies are de-duplicating and aggregating data, within the same business level (for example, at the establishment or enterprise level) and within the same data set, to find all observations related to a single legal entity.
- **Aggregating data within a corporate structure**: agencies aggregate data to the enterprise level of a corporate structure in order to group all observations related to a single enterprise.
- **Matching microdata at the same business level** between two or more data sets for:
  - Statistical purposes (including program evaluation): For example, agencies add variables to existing data sets to enhance quantitative analyses of firm behavior.
  - Programmatic purposes: For example, agencies may use linked data sets to support decision making from merged data that better defines market activity, and resulting risks.
- **Matching between different business levels** in two or more data sets: for example, agencies link different business levels to more fully understand corporate structures in the context of successorship, franchising, and multisite employers, at a given point or over a period of time.

Types of matches

There are two types of matching: deterministic and probabilistic:

- **Deterministic**, or exact, matching, looks for an exact match between two pieces of data.

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[1] This white paper is intended to provide the Commission on Evidence-Based Policymaking with background information on topics relevant to the Commission's work. The paper was prepared by staff from OMB and staff from other Federal agencies.

- **Probabilistic**, or "fuzzy," matching uses a statistical approach to assess the probability that two records represent the same entity.

Data quality is a key factor in determining which method to use for matching. If data are well-curated, deterministic matching is the simpler, more accurate, and faster method, when the two data sets contain the same unique identifiers to perform the match. Often, such identifiers are not available, or the identifiers present within the data sources do not uniquely identify the entities to be matched. In such cases, deterministic matching may still be possible, but only with painstaking research for each case. Probabilistic matching is more complex than deterministic matching, but it provides an approach for matching when deterministic matching is not feasible. It is often difficult and resource-intensive to evaluate the quality of probabilistic matches.

Challenges in matching employer data

There are two primary issues that drive the vast majority of the challenges in matching data: the lack of a common universal identifier for employer units and poor quality of the underlying identifying data.

The greatest barrier to matching data on employers across data sets is the lack of a common, or universal, business identifier. Eliminating this obstacle by developing a Federal system to create and manage a universal identifier could result in cost savings in matching but would require a major investment of time and Federal resources to create and maintain such an infrastructure. Assuming that the identifier could be created, it would be a challenge to enforce consistent use of such an identifier by all employers on the domestic and international fronts. This identifier would need to capture various corporate/industry levels and change over time (in other words, it should change with firm births, deaths, mergers, acquisitions, etc.), and no Federal entity has the authority, staff, or resources to collect and manage such information.

There are examples of voluntary, widespread adoption of important taxonomies, such as the North American Industry Classification System (NAICS). Given that the creation and use of a universal identifier is likely in the best interest of taxpayers and will likely reduce Federal and enterprise burden, it would be worth exploring whether a voluntary means of adoption is viable. Such voluntary adoption may also be complicated by the nature of the global economy and the domestic and international structure of some employers.

Because there is no universal employer identifier which meets cross-agency needs, agencies often have to expend significant resources to research each case for deterministic matching or to obtain data for probabilistic matching. That is, agencies can and do combine different data fields to match employer data, but the effectiveness of this approach varies based on data fields available and data quality in those fields. Common issues include: missing important data fields, inconsistent data formats, and change over time in critical matching fields.

Best Practices

There is substantial potential to achieve efficiencies in matching U.S. employer data across Federal data sets for data analysis, evaluations, and statistical activities, based on common needs across agencies. To this end, there are immediate steps agencies can take to adopt best practices for data collection and matching, which are illustrative of the nature of practices Federal agencies have developed to deal with difficult, entrenched matching challenges. There are also ways to maximize the use of existing authorities and data sets to enable matching. In particular, leveraging data elements common among Federal agencies which, in combination, constitute a universal unique identifier, would facilitate efficiencies for matching Federal data sources.

Notably, the utility of Federal data sources can be increased by including as many cross-agency identifiers as possible. While these fields are useful for matching, it is important to note that identifiers have confidentiality, privacy, and proprietary concerns.

Moving forward, there are topics that could benefit from further investigation from the Employer Data Matching Workgroup, such as the development of a roadmap for implementing common data elements in Federal data sources, the development of an authoritative source of business existence and characteristics for Federal agencies, the possible role and value of a centralized data sharing "referee," and the establishment of a Federal community of practice for matching and entity resolution.

INTRODUCTION

The Federal Government currently collects data from employers and enterprises in the United States for a wide range of purposes, including administering small business loan programs, administering regulatory requirements, and producing valuable economic statistics. While these data collections are valuable and frequently necessary, in some cases they can result in the collection of duplicative information from employers. For example, both the Bureau of Labor Statistics and Census Bureau collect duplicative information on businesses with multiple locations.[2]

Several agencies have taken steps to attempt to reduce this burden while also increasing the amount and usefulness of the information generated from these data collections.[3] For example, since the 1990's, agencies within the Federal Statistical System have taken advantage of electronic data and web-based reporting to minimize respondent burden and significantly lower data processing costs.[4] Additionally, the Environmental Protection Agency (EPA) implemented an Application Programming Interface (API) that allows regulated establishments and facilities to take advantage of previously-reported information for querying, retrieving and pre-populating future required reports, which not only improved the data quality and the ability to match data across multiple programs, but also reduced the annual reporting burden by over 140,000 hours for a single EPA program.[5]

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[2] The BLS conducts its quarterly Multiple Worksite Report (MWR), which asks most multi-location employers to provide monthly employment and quarterly wage data for all of their establishments covered under one Unemployment Insurance (UI) account in a state. Most multi-location employers with a total of 10 or more employees combined in their secondary locations are required or requested to complete the MWR. The Multiple Worksite Report is designed to collect information showing the distribution of the monthly employment and quarterly wages of business establishments, by industry and geographic area. Information on the MWR form is used to more accurately classify employment and wage data of multiple establishment employers by industry and by location within a State. By collecting and storing employment and wage data by worksite, states and the BLS can disaggregate these data below the county level for more extensive and detailed analysis of business and economic conditions within their state, including local and regional employment totals. These data are used to ensure an equitable distribution of federal funds through grant programs that use county economic indicators as a basis for allocations. No other sources are available to obtain this information.

The Census Bureau conducts its annual Company Organization Survey (COS) to obtain similar information on multi-establishment firms in order to maintain its Business Register (BR). Annual data collection for the COS begins in late December of the reference year for the pay period of March 12th. Reported data are for activities taking place during the reference year. An annual mail-out survey of selected companies is conducted for large multi-establishment companies with 500 or more employees are selected with certainty. Small multi-establishment and single-establishment companies are selected based on administrative data indicating a probable organizational change. All selected companies are identified from those maintained on the Business Register. Survey results are available to the Census Bureau about 8 months after each reference year and are used throughout Census Bureau economic data program operations, as a major source of information for County Business Patterns reports, and as a resource in responding to requests for a variety of special reports and reimbursable tabulations.

Recently, BLS and Census have been sharing their multi-unit data which accrues cost efficiencies and improves the comparability and accuracy of Federal economic statistics by improving the consistency of multi-location data and reducing respondent burden.

[3] The examples noted represent the current range of burden reduction activities occurring among Federal agencies. By achieving efficiencies in matching through the white paper's suggested approaches, future burden reduction is possible (e.g. avoiding new surveys).

[4] For example, see:
https://www.census.gov/history/www/innovations/data_collection/counting_the_population.html
http://stats.bls.gov/opub/mlr/2016/article/one-hundred-years-of-current-employment-statistics-data-collection.htm
[5] EPA Toxic Release Inventory TRI-MEWeb 2.0 Reporting Burden Estimate

At the same time, there is a growing interest in identifying more efficient and effective ways to help employers succeed and comply with Federal requirements. One cost-effective method to generate these insights is by analyzing and evaluating the effectiveness of existing programs using the data that government already collects. Frequently the programs that are being evaluated are designed to help firms grow, ease compliance with Federal requirements, or promote innovation. However, the data on the outcomes of interest, whether it is employment growth, regulatory compliance, economic growth, or competitiveness, frequently reside in different government data sets, across multiple agencies. To capture this outcome information, agencies can either collect the information again—at additional cost and burden on employers, or they can get the data from a data set elsewhere in government.

Similarly, statistical agencies may be able to more cost-effectively and efficiently collect and generate economic statistics by re-using already-collected data. Using such data, statistical agencies can establish sampling frames which are more cost-effective by accounting for additional information on the sampling units. Additionally, improvements in administrative data can reduce burden associated with statistical collection by reducing the need for duplicate reporting of information. If statistical agencies can gain access to key data via the administrative data that employers already report as a regular part of their business activities, there will be less need for the statistical agencies to ask employers for those data again through surveys. Further, combining these data can lead to new, improved, and valuable data products and evidence that can benefit employers and help government develop smarter policies[6].

It is currently very difficult for agencies to access and use this information for statistical, evaluation, or other purposes[7]. In order for these data to be useful, researchers, statisticians, and evaluators must be able to match data on individual employers within the same data set and between different data sets, and they must be able to do so reliably and with little error. Access to the data may also be limited by law, such as by Title 26 or the Confidential Information Protection and Statistical Efficiency Act of 2002 (CIPSEA). This type of matching requires the ability to accurately identify the same employer in two or more different data sets. When conducting this type of match for individuals, frequently a combination of unique identifiers is used, including the social security number (SSN), name, and date of birth (DOB). However, for employers, there is no standard equivalent to SSN, name, and DOB. In some cases this variation in employer identification approach is the byproduct of different program rules and requirements. In other cases it is an artifact of the way government data systems have developed over time. In all cases, this variation is a large barrier to determining if Federal programs and policies affecting employers and their employees are effective, especially when answering such questions requires data from multiple data sets. Just a few of the complicating factors involved include:

- Lack of a unique identifier. There is no government-wide policy on which, or even whether, any unique identifier should be used across all government data sets that affect employers. Data sets may include different identifiers for legal, policy, or programmatic reasons, such as to maintain consistency with historical data or to minimize burden on respondents.
- Inconsistent level of identification. Businesses have multiple levels of organization, including the establishment (physical location), enterprise (which may consist of multiple establishments), and parent company (which may consist of multiple enterprises). There may also be differing needs for ultimate domestic corporate parent versus global corporate parent. Depending on the purpose of a program or statistical collection, Federal agencies track employer information at different levels of identification, and matching across these levels can be difficult.

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[6] See also: "Using Administrative and Survey Data to Build Evidence." July 15, 2016.
https://www.whitehouse.gov/sites/default/files/omb/mgmt-gpra/using_administrative_and_survey_data_to_build_evidence_0.pdf
[7] See also: "Barriers to Using Administrative Data for Evidence-Building." July 15, 2016.
https://www.whitehouse.gov/sites/default/files/omb/mgmt-gpra/barriers_to_using_administrative_data_for_evidence_building.pdf

- Data quality. Data quality issues, such as respondent reporting error, or lack of formatting consistency among fields for matching, prevents or complicates the matching processes.
- Timing. The timing for when the data are collected may complicate the matching process as more current information may be available for the same unit of observation.

For all of these reasons, it is often highly labor intensive and expensive to match and reuse these data. Matching across data sets can take months or even years, and still may not fully serve the intended goals. These problems occur across statistical, evaluation, and program functions in Federal agencies. While the purpose of matching may differ, the matching and analytical challenges are common across these functions.

Overview of the Workgroup

In order to begin to address these issues, OMB convened an interagency Employer Data Matching Workgroup. The Workgroup was co-chaired by senior members of the Census Bureau and the Bureau of Labor Statistics, and included over 40 expert Federal staff across 14 Agencies, representing 29 program, evaluation, and statistical offices. The scope of this project included matching at multiple levels (establishment, and firm or enterprise), matching parent/child relationships within firms or enterprises, and capturing the dynamic nature of these relationships as they change over time.[8]

The Workgroup was charged with developing strategies to make it easier to match data on U.S. employers across Federal data sets for statistical purposes. **Statistical purposes** refer to the use of data to better understand the characteristics, behavior, or needs of groups.[9] Program evaluation falls within this definition. Statistical purposes exclude uses of data that affect the rights, benefits, or privileges of individual entities: indeed one of the defining characteristics of statistical uses is that data about an individual entity are never made public and are never used to make decisions about that entity. But statistical purposes include a wide range of analytic uses, where only aggregated and de-identified data are made public.

While the Workgroup focused its activities on these statistical purposes, it became clear that many of the best practices identified could have benefits for non-statistical purposes. One of the primary ways this work could reduce burden on employers is by facilitating the re-use of individual-level employer identifying data from one program to another (e.g., by allowing an employer to select itself from a pre-populated list or auto-loaded list of establishments or entities rather than entering the data anew each time). This type of activity requires identification and release of information at the individual identity level, so even though the information may be otherwise publicly available (e.g., name and street address), it falls outside of the definition of a statistical purpose.

Workgroup members have spent many years finding ways to improve matching for their specific purposes. The goal of this white paper is to share knowledge and best practices the Workgroup believes would yield potentially significant benefits in reducing agency workloads, burden associated with statistical collection, and reporting burden for employers.

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[8] See Appendix D for a detailed description of participating Federal agencies and the Workgroup methodology.

[9] Note that a statutory definition of "statistical purpose" exists in section 502(9) of CIPSEA:

"The term 'statistical purpose'-

"(A) means the description, estimation, or analysis of the characteristics of groups, without identifying the individuals or organizations that comprise such groups; and

"(B) includes the development, implementation, or maintenance of methods, technical or administrative procedures, or information resources that support the purposes described in subparagraph (A)."

WHAT IS AN "EMPLOYER?"

In order to identify the barriers and potential best practices for matching and reusing data on employers, it is first essential to identify what we mean by "employer." This task is somewhat more complicated for businesses than for individuals, given that the identification of a person is fairly stable regardless of context. However, there are multiple levels of business that may be of interest. For example, one could be interested in the effect of a technical assistance grant on a single business location, or the effect of a small business loan on a firm that has multiple locations.

Terms such as "employer," "firm," or "establishment" are often defined differently in statutes and regulations across Federal agencies and programs. Many of these terms are based on commonly shared concepts, so while precise matching of terms across agencies is not possible, some generalization is both useful and practical. For clarity, this white paper uses an internal taxonomy to account for the definitional differences among Federal agencies:

- **Establishment:** a single physical workplace or facility. An establishment is commonly understood as a single economic unit, such as a farm, a mine, a factory, or a store, that produces goods or services, for which payroll and employment records are kept. Establishments are typically at one physical location and engaged in one, or predominantly one, type of economic activity for which a single industrial classification may be applied.[10]
- **Legal Entity:** a legal person or structure that is organized under the laws of any jurisdiction.[11]
- **Enterprise:** Alternative terms for enterprise are *firm* and *company*. An enterprise is a legal business entity that may consist of one or more establishments. Each establishment may or may not participate in a different economic activity. The establishments may have different physical addresses. If they do, the physical address of record should be for the headquarters or main office of the enterprise.[12]
- **Parent Company:** An enterprise that owns all or the majority (51% +) of another enterprise so that the latter stands in relation to the former as a subsidiary.[13]
- **Employer**: a legal entity or individual identified as a worker's employer either nominally (for example, on the workers' paychecks or tax forms) or through an employment relationship. This term can pertain to establishments, enterprises, and parent companies.[14]

Federal data sources and related matching efforts often capture relationships among establishments, enterprises, and parent companies, for mission-related analysis and reporting. For example, an establishment-based enforcement program might collect all of their data at the establishment level, but in order to analyze trends by enterprise or industry, need to be able to aggregate those data. As another example, a statistical agency may collect data at the establishment level, but publish tabulations of these data by the size of the parent company.

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[10] Portions of this definition are derived from the definition of "establishment" within the Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW) Business Register (BR), and the Census Bureau's Business Register.
[11] This definition is derived from the International Organization for Standardization's definition of Legal Entity Identifier. For further information, see: http://www.iso.org/iso/catalogue_detail?csnumber=59771
[12] Portions of this definition are derived from the definition of "firm" or "company" within the Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW) Business Register (BR), and the Census Bureau's Business Register's definition of "enterprise."
[13] From: https://www.dol.gov/vets/contractor/main.htm#20
[14] The definition of "employer" under the Fair Labor Standards Act informs this definition.
See also: https://www.dol.gov/whd/regs/compliance/whdfs13.pdf

MATCHING EMPLOYER DATA

Why is matching conducted?

Many Federal administrative and statistical activities require a matching process. For example, if an agency wants to avoid having duplicate observations for an establishment within an administrative database, then it has to identify all reports in its data that apply to a specific establishment, and then look to see if there are duplicates for certain phenomena. In general, matching activities fall into one of the following fundamental types of activities:

- **Finding data on the same entity within a single data set:** agencies are de-duplicating and aggregating data, within the same business level (for example, at the establishment or enterprise level) and within the same data set, to find all observations related to a single legal entity. For example, agencies regularly undertake projects, involving searches within administrative data sources, to identify all instances of transactions with particular legal entities. A regulatory agency may search its administrative data to determine the compliance history of a particular employer.
- **Aggregating data within a corporate structure**: agencies aggregate data to the enterprise level of a corporate structure in order to group all observations related to a single enterprise. For example, agencies will nest companies within larger, related aggregates in order to measure economic activity over time. Statistical agencies may aggregate data (e.g. employment counts) for branch locations of an enterprise, in order to measure the size of the enterprise.
- **Linking/Matching microdata at the same business level** between two or more data sets for:
  - Statistical purposes (including program evaluation): For example, agencies add variables to existing data sets to enhance quantitative analyses of firm behavior. A statistical agency may integrate data sources to augment one source with fields not initially contained within the source, such as firm age.[15]
  - Programmatic purposes: For example, agencies may merge data sets to provide fuller information on market activity and risks to support decision making. A regulatory agency may take advantage of merged employer data sources to get a more complete picture of firms and sources of financial risks in an industry.
- **Linking/matching between different business levels** in two or more data sets: for example, agencies link different business levels to more fully understand corporate structures in the context of successorship, franchising, and multisite employers, at a given point or over a period of time. An agency may match data on corporate hierarchies with another employer data set, to further understand the employer's relationships with other legal entities. Also, an agency may tabulate data collected at the establishment level by characteristics of parent companies.

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[15] Additionally, statistical agencies link microdata at the same business level to develop new data products. For example, BLS's QCEW program matched publicly available IRS data on nonprofits with its business register to develop new data on the non-profit sector. This initiative is meeting the needs of data users with no new resources while imposing no new respondent burden on businesses. These new combined research data covering 2007–2012 were released in September 2014, meeting a longstanding need for recent, detailed industry and geographic detail on this large sector of the economy. The nonprofit sector covers about 10% of employment and has higher than average wages, making this segment of the economy important to understand. Another BLS matching project overlays hurricane flood zones over geocoded business locations. Maps and tables are published and available on the BLS website showing the number of establishments, and the accompanying employment and wages that are exposed to potential damage under hurricane conditions of varying strengths.

Types of matches

There are two types of matching: deterministic and probabilistic:

- **Deterministic**, or exact, matching, looks for an exact match between two pieces of data. In order for this method to be effective, the data being matched should uniquely identify the entity of interest, and the same data field should be present and formatted in the same way in both records. This method is ideal if the data sets of interest are reliably and accurately collecting unique identifiers, and the unique identifiers are well-matched to the purpose of the analysis.
- **Probabilistic** matching uses a statistical approach to assess the probability that two records represent the same entity. In order to accomplish this, a set of data fields are compared between two records and the closeness of the match between two record pairs is assessed.

Data quality is a key factor in determining which method to use for matching. If data are well-curated, deterministic matching is the simpler, more accurate, and faster method, when the two data sets contain the same unique identifiers to perform the match.[16] Often, such identifiers are not available, or the identifiers present within the data sources do not uniquely identify the entities to be matched. In such cases, deterministic matching may still be possible, but only with painstaking research for each case. Probabilistic matching is more complex than deterministic matching, but it provides an approach for matching when deterministic matching is not feasible. It is often difficult and resource-intensive to evaluate the quality of probabilistic matches.

Deterministic and probabilistic matching methods have the potential to produce data structures that give additional insights the original data could not have provided. Several agencies and offices reported the use of matching methods to turn administrative data sources, with multiple discrete observations of employers or establishments, into quasi-longitudinal or time series data, by linking observations over time. Similarly, there are matching applications that can link subsidiaries to parents or nest companies within larger, related aggregates.

Current unique identifiers used across Federal Agencies

Several entities have created unique identifiers (IDs) in order to improve matching and identification of employers, which are used across multiple Federal Agencies. However, none of these IDs are universally collected, and none of them uniformly identify the level of business or the relationship between the levels of business. There are four primary unique identifiers currently in use by Federal Agencies: the Employer Identification Number (EIN), Data Universal Numbering System (DUNS©) numbers, Commercial and Government Entity (CAGE) codes, and the Legal Entity Identifier (LEI). To apply for a Federal contract or grant, an entity must have an EIN, DUNS© number, and CAGE code. However, these identifiers are not currently used throughout all Federal data sets as only a small percentage of U.S. enterprises register annually for Federal contracts or grants. These identifiers enable clear identification of unique entities seeking Federal dollars and are used to identify exclusions, past performance history, and business integrity. Additionally, the LEI, as required under Public Law 111-203 (commonly known as the Dodd-Frank Wall Street Reform and Consumer Protection Act), is heavily used within the federal financial regulatory community, and by non-financial regulatory agencies.[17]

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[16] See also: https://www.healthit.gov/archive/archive_files/FACA%20Hearings/2010/2010-12-09%20Patient%20Linking/Probabilistic%20Versus%20Deterministic%20Data%20Matching.pdf

[17] For a complete list of Federal agencies currently using LEI, see: https://www.gleif.org/en/about-lei/regulatory-use-of-the-lei.

- The **Employer Identification Number (EIN)** is issued by the IRS. Under the Internal Revenue Code (IRC), every US entity is required to have an EIN for tax purposes regardless of whether they have Federal contracts or grants. An enterprise subject to Federal income tax will file using this EIN on its own separate tax return or file under the Parent Company's EIN of a consolidated return if it elects to file with an affiliated group of other enterprises.[18] Furthermore, establishments can be associated with multiple EINs or an enterprise could use the same EIN for all its establishments.
- A **Data Universal Numbering System (DUNS©)** number is a uniform and unique nine-digit number administered by Dun and Bradstreet (D&B). The number is assigned by D&B and is currently collected by the Federal government as part of the registration process for grants and contracts.
- A **Commercial and Government Entity (CAGE)** code is a uniform and unique five-character alpha-numeric identifier for entities in the U.S. CAGE codes are used internationally as part of the North Atlantic Treaty Organization Codification System (NCS). Management of CAGE codes in the United States is done by the Department of Defense. If an employer has not applied for Federal contracts or grants, the entity would not need a CAGE code and thus may not have one.
- The **Legal Entity Identifier (LEI)** is a 20-digit, alpha-numeric code based on the ISO 17442 standard developed by the International Organization for Standardization (ISO). It connects to key reference information that enables clear and unique identification of legal entities participating in financial transactions, such as those participating in financial transactions or when used in regulatory and supervisory reporting.[19]

There are a number of other intra-Agency identifiers which Federal Agencies use for internal databases, or for limited cross-agency coordination. For example, the **State Unemployment Insurance Account Number** (UI number) is issued by state unemployment insurance agencies. The state identification number is assigned by each state to identify employers covered by State UI laws or to identify federal government installations covered by Unemployment Compensation for Federal Employees (UCFE) provisions. UI account numbers are utilized at the federal level to identify establishments maintained in the BLS's Quarterly Census of Employment and Wages (QCEW) files. This field is consistent from quarter to quarter and allows for identification of the same unit over time.

Challenges in matching employer data

There are two primary issues that drive the vast majority of the challenges in matching data: the lack of a common universal identifier for employer units, and poor quality of the underlying identifying data.

Universal Employer Identifiers

Agencies lack a single, universal identification system for establishments, firms and other types of employer units in Federal and non-Federal data. In the ideal system, such an identifier would be hierarchical such that each employer unit, at each level (i.e., establishment, enterprise, parent company) would have its own unique ID, and the set of identifiers would be used together to identify the relationships among the levels over time.

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[18] Further, some foreign entities that are US-owned have an EIN for Federal tax purposes.
[19] "Introducing the Legal Entity Identifier (LEI)." Global Legal Entity Identifier Foundation. <https://www.gleif.org/en/about-lei/introducing-the-legal-entity-identifier-lei>. Accessed 12/9/2016. See also: http://www.leiroc.org/lei.htm.

Thus a single establishment could be tracked not only across multiple data sets, but also as it is sold from one enterprise to another.[20]

If such an infrastructure existed, linking would be simple, as deterministic matching with a single data element would be feasible, and connections among different business levels over time would be implicit in the identification system. Developing such an infrastructure could result in cost savings over time for both statistical and program agencies, though more work needs to be done to compare the costs and benefits of developing this infrastructure.[21] Such a system would also enable an employer to provide a piece of data to government only once, rather than multiple times, subject to any legal limitations on sharing of the data. A primary challenge with such a system is maintaining the accuracy and currency of the underlying firm or employer data. While matching would be simple, verifying the mergers, acquisitions, incorporations, and continuous changes would require significant domestic and international resources or connections. Absent such due diligence, employers could change incorporation or legal structure, and obtain new identifiers. Assigning improper activity, sanctions, or other such determinations based on inaccurate identification could have serious repercussions.

There is great variability among statutes, regulations, agency policies, and reporting definitions in how employer units are identified. This variation largely comes from differences in laws and policies as they apply to different subsectors of business. For example, the Fair Labor Standards Act of 1938 (FLSA), which "establishes minimum wage, overtime pay, recordkeeping, and child labor standards affecting full-time and part-time workers in the private sector and in Federal, State, and local governments,"[22] defines "employer" to include "any person acting directly or indirectly in the interest of an employer in relation to an employee and includes a public agency, but does not include any labor organization (other than when acting as an employer) or anyone acting in the capacity of officer or agent of such labor organization."[23] In comparison, the Occupational Safety and Health Act of 1970 (OSH Act), which "assure[s] safe and healthful working conditions for working men and women," defines "employer" to mean "a person engaged in a business affecting commerce who has employees, but does not include the United States (not including the United States Postal Service) or any State or political subdivision of a State."[24]

The statutes have additional differences, such as differences in coverage. A 2002 GAO study noted when comparing the FLSA and OSH Act that: "Coverage under the OSH Act is broader. All employees of a particular employer are covered if the employer is engaged in a business affecting commerce. Coverage under the OSH Act does not depend on the specific activities of the employee or the volume of the employer's business."[25]

This variability has obvious ramifications for what can reasonably be expected from matching data sources from very different programs and approaches to defining "employment," "employer," and "employee," as well as corporate structures such as "firm," "establishment," and "enterprise." [26] Many of these inconsistencies would still present obstacles to matching even if the government were to develop a common conceptual standard and definition for the unique identifiers.

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[20] More specifically, databases with such a universal unique identifier would ideally contain a history for each establishment of its relationships over time (i.e. its history of hierarchical identifiers). That database would allow for tracking of the establishment over time even if it changed owners and relationships.

[21] Costs could include, for example, staff to research the incorporation or legality of an entity, build corporate family trees, and track changes among corporations. Benefits could include elimination of costs related to poorly matched or unmatched data.

[22] See: https://www.dol.gov/whd/regs/compliance/hrg.htm

[23] See: https://www.dol.gov/whd/regs/statutes/FairLaborStandAct.pdf

[24] See also: https://www.osha.gov/pls/oshaweb/owadisp.show_document?p_table=OSHACT&p_id=2743

[25] From: http://www.gao.gov/assets/240/235612.pdf

[26] The paper contains an internal taxonomy to ensure that there is a common set of definitions to support its description of best practices.

In addition, considering the variations in statutes, policies, and uses, creation of a new Federal infrastructure that would establish, maintain, and assign identifiers to commercial and Federal entities would require considerable effort. Such a change would require the establishment of a Federal program to manage the identifiers. In addition, such a change could require changes in statute to harmonize definitions of different employer units as well as modifications to policy and numerous data collection and maintenance systems across Federal government agencies. Such changes in program definitions would need to be handled in a manner so as not to disrupt the continuity of longitudinal data that is already being collected. Also, regulatory agencies could not leverage confidential data sources within Federal statistical agencies even if those sources contain a universal identifier.

Beyond cost and conceptual challenges, it would also be difficult to enforce consistent use of such an identifier by all employers within current authorities. There is no single Federal agency that would be a natural owner to enforce the use of such an identifier because no Federal entity currently collects all of this information. There are examples of voluntary, widespread adoption of important taxonomies, such as the North American Industry Classification System, or NAICS. However, this is a very broad standard that is applied to classes of enterprises and employers rather than used to uniquely and uniformly identify individual employers. Given that the creation and use of a universal identifier is in the interest of businesses and taxpayers, it would be worth exploring whether a voluntary means of adoption of a universal identifier is viable.[27]

Moreover, there are ways to maximize the use of existing authorities and data sets to enable matching. In effect, these probabilistic methods rely on a variety of existing, widely collected data fields, which when combined can effectively create a flexible "universal identifier" that can be adapted to different applications. These methods generally require the data to be of high quality and sufficiently standardized in order to be effective.

Because there is no universal employer identifier which meets cross-agency needs, agencies often have to expend significant resources to obtain data for probabilistic matching. Agencies currently deal with challenges related to:[28]

- **Resource and capacity constraints.** Acquiring data housed by other agencies can be costly and difficult for Federal agencies. The process of developing interagency agreements can be time-intensive, and agencies require employees with the proper skill set and time available to reconcile data with different definitions. Also, because many agencies do not have a complete and current data inventory, they may not be fully aware of data that is available to support their particular needs. After receiving the data, agencies may not know the usefulness of the available data until after significant efforts to review the source, depending on the availability of relevant documentation and metadata. Additionally, infrastructure may be a barrier to obtaining data. For example, if the construction of an agency's own or preferred data center is considered sufficient for one survey but not another (e.g., differences in requirements for physical security and data access protocols between two data sources might prohibit linkage), an agency may have to expend significant resources to determine an alternative strategy for accessing data. Lastly, the cost of purchasing external data sources can serve as a practical barrier for agencies with limited funding available for such purchases.

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[27] A review of voluntary adoption would require the selection or scoping of a prospective identifier. The Workgroup puts forward a framework for Federal data sources to include existing, widely collected data fields, which when combined can effectively create a flexible "universal identifier" that can be adapted to different applications.

[28] See also: https://www.whitehouse.gov/sites/default/files/omb/mgmt-gpra/barriers_to_using_administrative_data_for_evidence_building.pdf

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- **Legal barriers.** While there are Federal data sets containing information that can be valuable to regulatory agencies, limitations on the use of such data frequently restrain access. For example, under CIPSEA, data, including business data, acquired by an agency under a pledge of confidentiality and for exclusively statistical purposes can only be used by officers, employees, or agents of the agency exclusively for statistical purposes. Lacking access to an authoritative source on business existence and structure is a critical issue for correctly matching data, because agencies have no way to know if the data they are collecting is fully accurate. An authoritative source would be useful to serve as a "spine" to match data against.
- **Policy and legal interpretations.** At the agency level, there can be confusion in the interpretation of statutes such as CIPSEA as well as other policies on data sharing, which may create additional barriers for agencies trying to access and share Federal data sources for matching purposes. Agencies may spend months or years coming to agreement on the proper interpretation of a particular statute or policy, and to develop interagency agreements to allow matching. OMB's M-14-06, *Guidance for Providing and Using Administrative Data for Statistical Purposes*[29], encourages Federal departments and agencies to promote the use of administrative data for statistical purposes and provides guidance in addressing legal and policy requirements for such uses. It creates "a presumption in favor of openness to the extent permitted by law and subject to privacy, confidentiality, security, or other valid restrictions."

Data quality

Agencies can and do combine different data fields to match employer data, but the effectiveness of this approach varies based on data fields available and data quality in those fields. These issues can prevent deterministic matching for a number of reasons:

- **Missing important data fields:** Agencies frequently do not collect enough of the most important pieces of data to enable matching, and so they do not engage in data matching for those data sets. Federal agencies have generally built data collections for narrow and specific purposes, designing definitions, content, and formats to suit the immediate needs of the program performing the collection. While most sources with employer data include common data elements such as name, address, and basic characteristics such as NAICS code, these fields are not sufficient to match in all cases. For example, a match can be extremely difficult if not impossible to complete when data in the first data set is at the corporate level, but the matched data set is at the establishment level and does not include fields linking the establishments to their corporate hierarchies, such that neither data set has sufficient fields to create a cross-walk between the two. In some cases, agencies may have sufficient data to match on a deterministic or probabilistic basis, but may not have sufficient supplementary data to assess how good the match is.
- **Inconsistent data formats:** Federal agencies often have to deal with data quality issues arising from inconsistent data format standards. To cite a fairly common example, establishment names can vary considerably within and between data sources. Most data sources collect this information in free-text fields without edit checks, and allow variation. In extreme cases, establishment names can vary considerably, with a single Post Office branch being identified as "USPS", "US Postal Service", "United States Postal Service", and "USPS - MAIN STREET SOUTHBEND." In this case, deterministic matching of data sources by establishment name will not work, and even probabilistic matching methods may not work completely. Also, there is significant variation in data quality due to a lack of internal checks or naming conventions.

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[29] https://www.whitehouse.gov/sites/default/files/omb/memoranda/2014/m-14-06.pdf

- **Change over time in critical matching fields:** With both deterministic matching and probabilistic matching, a common assumption is that the fields are static over time—that is the field is collecting the same information in year one as it is in year ten. However, there are a number of instances in which this is not the case, where fields are redefined over time. The business universe is dynamic, and issues such as relocation, mergers, successorship, and firm births/deaths produce a mismatch between data collection and changes in business status. For example, this issue arises in analyses of young, small businesses which may not have been in existence long enough to meet annual reporting requirements for collections. Evolving classification systems, such as NAICS and LEI, also present a unique challenge in matching data sources where observations occurred over a period of many years.

BEST PRACTICES

The Workgroup identified a number of practices that agencies could adopt within current authorities that have the potential to reduce burden on employers and agency staff while also facilitating better use of information. The Workgroup prioritized best practices based on the following criteria:

- **Efficiency or Cost-Effectiveness:** Examine the levels of effort and pecuniary costs of implementing each solution, and select the most efficient and cost-effective options.

- **Applicability:** Select the most useful methods, fields, standards, and data sets.

- **Relevance to Scope:** Use the methods, standards and data sets that are the most relevant to improving the matching process.

- **Alignment:** The Workgroup emphasizes best practices which best align to existing guidance and data standards, including guidance from, but not limited to, the National Information Exchange Model (NIEM), the International Organization for Standardization (ISO), and OMB memo M-13-13, "Open Data Policy – Managing Information as an Asset."

The Workgroup identified four practices that Federal programs and agencies may find useful in making it easier to match employer data:

Best Practices for Matching Data

The Workgroup identified a set of collection and algorithmic approaches that constitute the best practices in matching data on employers. Individuals conducting matches could use these methods rather than attempting to create a new method each time a match is to be conducted. The specific methods that produce the best results vary depending on the purpose of the match and the data fields that are available. These methods are described in greater detail in Appendices B and E, and a related bibliography is available in Appendix C.

It is worthwhile to note that the quality of a match depends largely on the quality of the underlying data in each data set. Before conducting a match, individuals should engage in data cleaning and standardization. In addition, employing a range of matching algorithms is critical to obtaining optimal matching results. Finally, individuals conducting a match should take advantage of data quality analysis; improvements in business rules, which improve data quality (by permitting data to be entered into a system if they meet certain criteria); and improved use and creation of data documentation to improve matching outcomes.

Data Inventory

One of the common challenges to matching employer data is the identification of data sets that are available for matching and what those data sets contain. To ease this identification process, the Workgroup identified a representative sample of the most frequently desired or most valuable data sets that the government currently collects. These data sets contain information on individual employers, firms, and/or establishments that have the widest coverage, greatest use, or which agencies are most interested in matching to other data sets. This data inventory is included as an attachment to the white paper. The data inventory includes information on the data sources' coverage of U.S. businesses, collection methodology, access restrictions, and information related to common fields for matching. CIPSEA limits the use of many of these data sources exclusively to statistical purposes.

Common Data Fields

Federal agencies can benefit from adopting the common data fields for matching purposes detailed in Table 1.[30] These fields are most commonly used in the methods described above and in Appendix B. Table 1 also accounts for existing guidance from other data-sharing initiatives (such as for Federal spending transparency data standards, and the National Information Exchange Model, or NIEM), and lessons learned from prior studies linking administrative and statistical data sources.[31] [32] [33] These fields can provide an exact match, and aid in matching even if an exact match is not possible due to variance amongst data sources.

Table 1 proposes a set of "Tier 1" fields, which are the most essential fields for matching and entity resolution. Agency data sources lacking these fields are very difficult to match, and the Workgroup believes Federal Agencies can achieve potential cost savings if their data sources universally incorporated Tier 1 fields. It is possible to compensate for missing fields by creating a matching profile from a combination of Tier 1 and non-Tier 1 data elements. Please note the following considerations for the Tier 1 fields:

- **Establishment-Focused:** Employer data is collected at various organization levels. The proposed framework emphasizes establishment names and addresses to enable matching with potential authoritative sources described in Appendix A. However, many Federal employer data sources do not always use establishment as the unit of analysis. Placeholders for other fields to describe organization level are included as Tier 2 fields.
- **Treatment of Identifiers:** Generally, the utility of Federal data sources in regards to matching, linkage, and reuse can be increased by including as many common identifiers as possible. Table 1 therefore includes a number of data elements to reflect this prioritization. Additionally, while these fields are useful for matching, it is important to note that identifiers have confidentiality, privacy, and proprietary concerns. Where possible, Federal agencies should include non-sensitive and non-proprietary identifiers. Ideally, Federal agencies would institute policies and processes that support consistent identification of employers within an agency. This would minimize the data cleansing necessary to identify the same employer involved in programs across Federal agencies.

These fields are generally common among 39 data sources in the data inventory. Federal data sources within this categorization commonly have multiple Tier 1 data fields available for matching, including: at least one identifier, legal and trade names, establishment physical location and mailing addresses, country codes, and data timestamps. Table 1 also shows web sites and e-mail addresses as Tier 1 fields.

Additional helpful fields include: information on the ultimate parent company, NAICS codes, latitude and longitude, and phone number. A number of these fields are proposed as Tier 2 fields in Table 1, as they inform

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[30] Due to the variation in Federal agencies and programs, this Workgroup is not currently prescribing a process for agencies to use to implement the Common Data Elements, but a future effort could look into this.

[31] For further information, see "Federal Spending Transparency Data Standards" at MAX.gov, available at: https://max.gov/maxportal/assets/public/offm/DataStandardsFinal.htm

[32] NIEM is "a community-driven, standards-based approach to exchanging information." The U.S. Department of Homeland Security the U.S. Department of Justice, and the U.S. Department of Health and Human Services are the stewards of NIEM. or add a qualifier and data source for "majority"

See: https://www.niem.gov/aboutniem/Pages/niem.aspx https://www.niem.gov/aboutniem/Pages/history.aspx

[33] For example, see:

Krizan, C. J., Statistics on the International Trade Administration's Global Markets Program (September 1, 2015). US Census Bureau Center for Economic Studies Paper No. CES-WP-15-17. Available at SSRN: http://ssrn.com/abstract=2661478 or http://dx.doi.org/10.2139/ssrn.2661478

and enhance matching. A number of agencies do not have information on the ultimate parent or intermediate corporate entities in their data sources, but having this information would allow for hierarchical analysis (e.g. having all establishment identifiers each parent company uses). A third set of data elements are Tier 3 fields as they further support validation: the age of the firm in years, and the number of individuals employed by the firm.

Table 1: Initial Proposal for Common Data Fields

Priority	Field(s)	Field Definition	Examples of Relevant NIEM Core Type/Sub-Properties[34]
Tier 1	Identifiers	As many of the following elements as possible or feasible: • Employer Identification Number (EIN) • D-U-N-S Numbers • Legal Entity Identifier (LEI) • Commercial and Government Entity (CAGE) codes • Other cross-agency identifiers (e.g. UI account number) • Other Non-Confidential, Non-Proprietary Identifiers	**nc:OrganizationType** nc:OrganizationIdentification nc:OrganizationOtherIdentification **nc:IdentificationType** nc:IdentificationID
Tier 1	Legal Name	Legal Name of establishment.	**nc:OrganizationType** nc:OrganizationName nc:OrganizationBranchName
Tier 1	Trade Name	Trade Name, "Operating As" Name, or DBA of establishment.	**nc:OrganizationType** nc:OrganizationDoingBusinessAsName
Tier 1	Establishment Physical Location Address	The address is made up of six standardized components: Street Number, Street Name, and Building/Suite, City, State Code, and ZIP+4 or Postal Code. The address should follow the United States Postal Service's standardized address format (fully spelled out, abbreviated by using the Postal Service standard abbreviations or as shown in the current Postal Service ZIP+4 file). See also: http://pe.usps.gov/text/pub28/28c2_001.htm	**nc:OrganizationType** nc:OrganizationLocation **nc:LocationType** nc:Address **nc:AddressType** nc:AddressFullText
Tier 1	Establishment Mailing Address	The address is made up of six standardized components: Street Number, Street Name, and Building/Suite, City, State Code, and ZIP+4 or Postal Code. The address should follow the United States Postal Service's standardized address format (fully spelled out, abbreviated by using the Postal Service standard abbreviations or as shown in the current Postal Service ZIP+4 file). See also: http://pe.usps.gov/text/pub28/28c2_001.htm	**nc:OrganizationType** nc:OrganizationLocation **nc:LocationType** nc:Address **nc:AddressType** nc:AddressDeliveryPoint
Tier 1	Establishment Physical Location County Code	County codes from US Census and the American National Standards Institute (ANSI INCITS 31:2009). Available at: https://www.census.gov/geo/reference/codes/cou.html	**nc:AddressType** nc:LocationCounty census-3.0.1:USCountyCodeType

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[34] From NIEM 3.2 (current release). Available at: https://www.niem.gov/technical/Pages/current-release.aspx
"NIEM core consists of data elements that are commonly understood and defined across domains, such as person, activity, document, location, and item. It's governed jointly by all NIEM domains."
From: https://www.niem.gov/technical/Pages/The-Model.aspx

Priority	Field(s)	Field Definition	Examples of Relevant NIEM Core Type/Sub-Properties[34]
Tier 1	Country Code	Country Code as defined by ISO 3166 (codes for the countries, dependent territories and special areas of geographical interest), FIPS 10-4, or Geopolitical Entities, Name and Codes (GENC).	**nc:AddressType** nc:LocationCountry nc:LocationCountryFIPS10-4Code nc:LocationCountryGENCCode nc:LocationCountryISO3166Alpha2Code
Tier 1	Time Stamp of Collection, Time Stamp when observation Last Edited, and Lag Time.	Date and Time of collection, Date and Time when an observation was last edited, and Amount of Time between the reference period and time the data are available.	**nc:DateRepresentation** **nc:MetadataType** nc:ReportedDate nc:LastUpdatedDate **nc:DateRangeType**
Tier 1	E-mail Address	A corporate E-mail address for respondent.	**nc:OrganizationType** nc:OrganizationPrimaryContactInformation **nc:ContactInformationType** nc:ContactEmailID
Tier 1	Web Site	URL of web site for entity.	**nc:OrganizationType** nc:OrganizationPrimaryContactInformation **nc:ContactInformationType** nc:ContactWebsiteURI
Tier 2	Telephone Number	Telephone number for entity.	**nc:OrganizationType** nc:OrganizationPrimaryContactInformation **nc:ContactInformationType** nc:ContactTelephoneNumber
Tier 2	Other Intermediate Entity Legal Name (If Applicable)	Legal Name of Other Intermediate Corporate Entity.	**nc:OrganizationType** nc:OrganizationName
Tier 2	Other Intermediate Entity Identifier	Identifiers of Other Intermediate Corporate Entity (see above guidance on Identifiers)	**nc:OrganizationType** nc:OrganizationName **nc:OrganizationType** nc:OrganizationIdentification nc:OrganizationOtherIdentification **nc:IdentificationType** nc:IdentificationID
Tier 2	Ultimate Parent Entity Legal Name	Legal Name of Ultimate Parent.	**nc:OrganizationType** nc:OrganizationParent nc:OrganizationParentAffiliate nc:OrganizationParentOrganization **nc:OrganizationType** nc:OrganizationName

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Priority	Field(s)	Field Definition	Examples of Relevant NIEM Core Type/Sub-Properties[34]
Tier 2	Ultimate Parent Identifiers	Identifiers of Ultimate Parent (see above guidance on Identifiers)	**nc:OrganizationType** nc:OrganizationParent **nc:OrganizationType** nc:OrganizationIdentification nc:OrganizationOtherIdentification **nc:IdentificationType** nc:IdentificationID
Tier 2	NAICS Code	Six-Digit NAICS Code. 2017 NAICS revision.[35]	--
Tier 2	Latitude and Longitude of Establishment Physical Location Address	Latitude and Longitude of Establishment Physical Location Address, aligned to ISO 6709 and Federal Geographic Data Committee (FGDC.gov) established standards.	**nc:OrganizationType** nc:OrganizationLocation **nc:LocationType** nc:LocationGeospatialCoordinate
Tier 3	Establishment Age	Age of establishment in years.	**nc:DateRangeType** **nc:OrganizationType** nc:OrganizationIncorporationDate
Tier 3	Employment	Count of employees who are on the payroll, ideally for the pay period including March 12 of each year.[36] [37]	--

The fields in Tier 1, Tier 2 and Tier 3 vary in importance for individual offices. The Tiers shown in Table 1 reflect consensus on prioritized fields, but offices should account for variations. For example:

- Tier 2 elements become Tier 1 elements in establishment-based surveys. For example, phone numbers become an important Tier 1 field for not only identifying individual stores within an enterprise with one EIN, but also, having appropriate contact information for each store for future data collection activities. When matching on a city, there are many instances where the postal address is different from the municipal location. For example, New Jersey townships do not relate to what the postal service calls the location. Having additional fields, such as the County Code, further assist in matching.
- Fields in Tiers 2 and 3 may take on particular importance for regulatory activities. For example, it may be critical for a program to have information on intermediate and parent entities in order to engage the proper stakeholders for a compliance activity. Or, if an agency undertakes an investigation of a business that does not have an office, fields related to contact information may become critical for identification purposes.
- Also, some Tier 1 elements, such as the corporate e-mail address (following the "@" section) and/or Web site can be used to some extent as a self-identified definition of the "firm".[38]

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[35] http://www.census.gov/eos/www/naics/federal_register_notices/notices/fr08au16.pdf
[36] Derived from: http://www.census.gov/programs-surveys/cbp/about/glossary.html
[37] In instances where an entity has no employees, this field is equal to zero.
[38] For more information, see:
Krizan, C. J., Statistics on the International Trade Administration's Global Markets Program (September 1, 2015). US Census Bureau Center for Economic Studies Paper No. CES-WP-15-17. Available at SSRN: http://ssrn.com/abstract=2661478 or http://dx.doi.org/10.2139/ssrn.2661478

Federal agencies also want standardization and validation approaches for the Common Data Elements shown in Table 1, to maximize the quality of the data and ease of matching across Federal data sources.

- The table references NIEM Core data elements to take advantage of existing data standards, to which a number of Federal agencies have already agreed, for the Common Data Fields.[39]
- Table 1 shows Establishment Physical Location Address, and Establishment Mailing Address, with data entry of the street number, street name, and building/suite in separate variables, to expedite data cleaning. Table 1 also recommends use of the United States Postal Service's standardized address format for these fields.
- The data elements Legal Name, Trade Name, Other Intermediate Entity Legal Name, and Ultimate Parent Entity Legal Name should follow common formatting and validation standards to facilitate matching. For example, agency processes should account for legal entities which have a slightly different legal name in each state. Due to the range of approaches, which depend on project goals, the workgroup is not able to recommend a single standard or method. Rather, agencies should take advantage of existing methods for standardization and validation, which are further discussed in Appendix B. Also, Federal agencies should explore use of resources that help delve into correct names as well as legal filings.[40]

Data Collection Improvements

Federal agencies can achieve potential cost savings in data matching and reuse when they improve the quality of data at the point of entry. They accomplish this with changes in collection methods, subject to any legal requirements (e.g., the Paperwork Reduction Act of 1995), or with validation steps at the time of input. There is a range of methods for improving the quality of fields at the point of collection, resulting in higher quality data, fewer resources expended to clean data, and burden reduction for the regulated community.

First, agencies benefit from ensuring that they have clear reporting guidance for data collection activities to minimize variability in data quality. Robust and clear guidance, combined with a collection tool which reinforces the guidance, ensures that agencies minimize efforts in cleaning data.

Additionally, Application Programming Interfaces (APIs) for validating data have been proven to significantly improve data quality for matching while simultaneously reducing reporting burden. APIs on the front and back ends of data entry are highly useful for validating and standardizing the common data elements shown in Table 1. For example, the U.S. Environmental Protection Agency's Facility Registry Service (FRS), which integrates data on over 4 million establishments and places of interest from across 90 different systems, built an API which took advantage of existing, previously-collected data from internal data sources for entity resolution at the point of data collection.[41] The API allows reporters to identify establishments by searching and retrieving information that was previously reported via other systems from which the FRS ingests data. When a user searches for a particular firm, the application then allows newly reported information to be associated with existing, known establishment information and identifiers. This interface has been used for other EPA programs, such as the Toxic Release Inventory (TRI).[42] Within the TRI program, the EPA has seen significant data quality improvements and has estimated a burden reduction of 140,269 hours for reporters.

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[39] See also: NIEM 3.2 (current release). Available at: https://www.niem.gov/technical/Pages/current-release.aspx
[40] One example of this is OpenCorporates, which scrapes the legal filings from the various State Departments of State. See: https://opencorporates.com/.
[41] "Facility Registry Service," *US Environmental Protection Agency, Office of Environmental Information*, Retrieved 09 Sep 2016 https://epa.gov/frs
[42] US EPA Toxic Release Inventory https://www.epa.gov/toxics-release-inventory-tri-program

Lastly, agencies benefit from having a strong understanding of respective data sources to be matched, anticipating data quality or consistency issues, and estimating the likely overlap in records for a point of comparison. Many agencies also provide points of contact who can discuss unusual or anomalous results, as well as steps they routinely use to optimize any attempted comparisons using their data. Common practices include:

- accounting for context in databases (such as knowing the context of the letters you are matching in a name),
- ensuring metadata is sufficiently descriptive to differentiate fields, and
- using forms with specialized functionalities (e.g. SmartForm) to validate and standardize data entered.

Authoritative Source

An authoritative source is a data source that provides current, accessible, and authoritative information on all data of a certain type. An authoritative source for data on business existence and characteristics would greatly improve the matching process, and could aid in reducing burden on employers. Such a source would contain validated information confirming existing or closed businesses, and characteristics for businesses such as geographic location, contact information, size, and industry. Additionally, this source would contain data capturing relationships among different levels of corporate and industry structures, and would be able to provide information on at least a quarterly basis on changes to these relationships. Making an authoritative source accessible would drastically improve the ability to validate data and conduct matches. It could also serve as the basis of a universal identifier in the future. Having an authoritative source would be useful for a variety of purposes including, but not limited to:

- **Entity resolution, including identity verification:** Having an authoritative source for cleaning or matching existing data, both during data entry (for example, confirming the identity of a reporting entity) and after (for example, when trying to match two data sets, executing resolution algorithm to show that two entities are actually the same), would reduce the time needed to reconcile data sources when matching them.
- **Sampling:** An authoritative source could enable Federal agencies to build valid sampling frames for surveys or program evaluations without having to rely on proprietary data sources.
- **Administrative purposes:** Authoritative sources could also assist with statistical processes within regulatory agencies, such as creating more accurate or precise estimates of various administrative or economic measures used as inputs for assessing agency performance (for example, examining compliance trends by normalizing for the size of an industry in a local area).

Currently there is no Federal data source that fits this description precisely. Appendix A describes a set of four potential data sets that could be the base for an "authoritative source." There are advantages and drawbacks to each of these sources, and further work would need to be done to determine how to enable Federal agencies to use these as authoritative sources. They include: the Business Register (Census Bureau), the Quarterly Census of Employment and Wages (BLS), the Business Master File (IRS), and the GLEIF Concatenated File (Global Legal Entity Identifier Foundation). While the three government data sources offer the greatest coverage, and are of the highest quality for identified uses, they have many legal and practical requirements and restrictions.[43] [44] The GLEIF Concatenated File has the advantage of being publicly available, but at this moment does not

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[43] U.S. Census: Title 13. https://www.census.gov/history/www/reference/privacy_confidentiality/title_13_us_code.html
[44] IRS: Title 26. https://www.irs.gov/tax-professionals/tax-code-regulations-and-official-guidance

cover a range of industries and establishments in a manner similar to the other three sources. Please see Appendix A for additional information.

The Workgroup also suggests further investigation towards creating federal protocols to support data sharing, such as the creation of centralized data sharing guidance. For example, some statistical agencies can allow programs with approved projects (including program evaluations) to detail employees to overcome impediments to cross-agency data sharing. Additionally, some agencies might adopt the model set by the State of Illinois's Department of Innovation and Technology, which in 2016 developed a government-wide MOU that defined a common data taxonomy, standardized internal controls, streamlined data sharing, and established an arbitration process. As a result, data requests are no longer "ad-hoc." They are processed in a matter of days—like FOIA requests—through a process described by the Department's General Counsel as "safe, quick, and transparent."[45] Several agencies, notably the Social Security Administration, have strong internal data sharing protocols that could be replicated on a larger scale. It may also be possible for the Federal government to follow aspects of the Illinois model without requiring changes to statute.

In light of the significant legal barriers, or policy and legal interpretations associated with the confidential sources noted in Appendix A,[46] agencies can instead maximize the use of their existing data by setting up validation and entity resolution checks at the point of data entry, or determine how to improve data sharing practices accounting for the models just described.

Over the long term, Federal Agencies may consider a range of options for additional best practices. For example, it would be beneficial to look into the possibility of combining the authoritative sources noted in Appendix A to create a new mapping table that only contains data necessary for entity resolution, and which could be available to a wider audience of Federal agencies. This could be treated as distinct from the other sources, may not have the same access restrictions as the underlying source, and would be similar to data sets where the data are confidential but can be shared in a masked or aggregated form. Alternatively, it would be useful to further examine to what extent an authoritative source could be constructed that does not contain confidential data, and to examine the quality of such a source relative to confidential sources.

NEXT STEPS

The Workgroup has developed additional recommended topics for investigation that could help improve the sharing of employer data:

- The establishment of an interagency community of practice and repository for sharing methods, code, and approaches to data collection and matching. Federal agencies might benefit from continuing to share knowledge in a structured manner, to ensure that Federal analysts take advantage of the most efficient matching and data collection approaches for a variety of applications. Offices within the Workgroup are able to assist in the establishment and maintenance of the group so that it would continue to be meaningful and useful for participants.
- Consultation with a broader Federal and external audience to gain additional insights from external experts and front-line statisticians.
- The establishment of a centralized data sharing "referee." Federal agencies have expressed an interest in finding ways to expedite and facilitate data sharing, and have identified a centralized office as key to achieving this. Such an office could develop common data sharing protocols, serve as a library of data

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[45] Testimony of Michael Basil, General Counsel, Department of Innovation and Technology, State of Illinois before the Second Meeting of the Commission on Evidence-Based Policymaking, September 9, 2016.

sharing agreements, and otherwise serve as a home for knowledge and process for interagency data sharing.

CONCLUSION

There is substantial potential to achieve efficiencies in matching U.S. employer data across Federal data sets for data analysis, evaluations, and statistical activities, based on common needs across agencies. The greatest barrier to matching data on employers across data sets is the lack of a common, or universal, business identifier. Eliminating this obstacle by developing an infrastructure to create, assign, and manage a universal identifier could result in cost savings in matching but would require a major investment of time and taxpayer resources. Assuming that the identifier could be created, it would be a challenge to enforce consistent use of such an identifier by all employers without statutory changes. This identifier would need to capture various corporate/industry levels and change over time, but no Federal entity collects all of this information.

Nevertheless, there are immediate steps agencies can take to adopt best practices for data collection and matching, and there are ways to maximize the use of existing authorities and data sets to enable matching. In particular, leveraging data elements common among Federal agencies which, in combination, can constitute a universal unique identifier, would facilitate efficiencies for matching Federal data sources. The utility of Federal data sources can be increased by including as many cross-agency identifiers as possible. While these fields are useful for matching, it is important to note that identifiers have confidentiality, privacy, and proprietary concerns.

Moving forward, there are potential places to go further to realize long-term improvements, such as developing a roadmap for implementing common data elements in Federal data sources, developing an authoritative source of business existence and characteristics for Federal agencies, developing a Federal community of practice for matching and entity resolution, and establishing a centralized data sharing "referee."

APPENDICES

Appendix A: Potential Authoritative Sources

The workgroup identified four existing data sets that could serve as the basis for potential authoritative sources of business existence and characteristics across agency missions and program functions (see Table A1 for additional information):

Business Register, U.S. Census Bureau
The Census Bureau's Business Register contains establishments of all domestic businesses (except agriculture, forestry, fishing, hunting, rail transportation, the U.S. Postal Service, elementary and secondary schools, colleges and universities, labor organizations, political organizations, religious organizations, public administration, and private households) and organizational units of multi-establishment businesses.   A single-unit enterprise's primary identifier is its Employer Identification Number (EIN).   A unique employer unit identification number identifies each establishment owned by a multi-unit enterprise on the Business Register.

Advantages: The Business Register (BR) covers more than 160,000 multi-establishment companies, representing 1.8 million affiliated establishments, 5 million single establishment companies, and nearly 21 million non-employer businesses (note, Census maintains a separate register for employers and non-employers).[47] The Business Register is updated continuously, and the update frequency varies by its sources. Lags also vary, by the reference period of the sources. The Business Register is one of the most complete, current, and consistent source of establishment- based information about U.S. businesses, and is essential to assuring full coverage and high quality in Federal economic statistics programs.[48]

Considerations: Users should note that the source excludes a significant number of industries, including, most notably, agriculture, education, and public sector. Additionally, due to the lags in the data, users should exercise care in analyses of industries and sectors with high turnover or conversion rates. This data set contains links between establishments and their parent firms, but these links are sometimes recorded a year or more before or after the reference date. [49] Also, the Census Bureau's Business Register is constructed using comingled confidential tax information and non-tax data from various sources, including Census surveys. The fact that the Census Bureau's Business Register contains confidential tax information prevents the Census Bureau from completely sharing its Business Register with other agencies not authorized to receive the confidential tax information under Title 26.

Business Master File, Internal Revenue Service
The Business Master File (BMF) contains data for all Federal business tax returns that meet IRS filing requirements. The data set consists of individually filed returns for a single establishment and consolidated filed returns consisting of a group of related (affiliated) establishments. BMF data are updated continuously but usually become available weekly. The unit of analysis is tax return-based, as filed by the taxpayer; enterprises are not aggregated by the IRS.

Advantages: The data set consists of total population data based on taxpayer filings. Also, the availability of Employer Identification Numbers allows for direct linkages.

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[47] See also: https://www.census.gov/econ/overview/mu0600.html
[48] Ibid.
[49] See also: www.bls.gov/osmr/pdf/st140030.pdf

Considerations: The unit of observation is a tax return, which is a higher, and different, level than establishment or physical location for multi-establishment businesses. This differs from both the Census Bureau's Business Register and Quarterly Census of Employment and Wages Business Register. Even for businesses that are not filing within a consolidated group, a return may not represent an establishment, for example in cases where a single business has operations located at more one physical address. Entity information such as addresses is based on taxpayer-reported information and may not necessarily be the actual physical address for matching purposes.

U.S. Bureau of Labor Statistics-Office of Employment and Unemployment Statistics, Quarterly Census of Employment and Wages (QCEW) Business Register (BR)
The QCEW-BR contains employment, wages, and administrative data (name, location, etc.) for over 9.5 million establishments, covering approximately 98% of all employment. The Quarterly Census of Employment and Wages (QCEW) provides data for establishments on monthly employment, total quarterly wages, the number of business establishments, and other business identification information such as address, industry, and federal employer identification number, etc. In addition to being very comprehensive and accurate data, the QCEW-BR is timely: data are available 6 months after the reference quarter making this the most current source of comprehensive business establishment data available.

The QCEW data are the product of a federal-state cooperative program. The data are derived from summaries of employment and total pay of workers covered by state and federal unemployment insurance (UI) legislation and provided by State Workforce Agencies (SWAs). States prepare a microdata file each quarter and submit that to BLS within 15 weeks of the end of the quarter. QCEW data are developed for the 50 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands. The summaries are a result of the administration of state unemployment insurance programs that require most employers to pay quarterly taxes based on the employment and wages of workers covered by UI. Employment and wage data for workers covered by state UI laws are compiled from quarterly contribution reports submitted to the SWAs by employers. For federal civilian workers covered by the Unemployment Compensation for Federal Employees (UCFE) program, employment and wage data are compiled from quarterly reports submitted by four major federal payroll processing centers on behalf of all federal agencies.

BLS sets quality standards in state cooperative agreements and provides conceptual, technical, and procedural guidance to the states and uses standardized procedures to process these data and ensure consistent quality across states. State workforce agencies are responsible for collecting the administrative records from their state unemployment insurance system and transform these records into meaningful economic data. In addition to state data quality improvements, BLS conducts additional data review at its regional and national offices to ensure quality.

BLS also enhances the data with two supplemental surveys:

- The Annual Refiling Survey, which allows BLS and the states to collect updated North American Industry Classification System (NAICS) industry codes, geographic county codes, and address information for business establishments.
- The Multiple Worksite Report, which allows BLS to collect detailed monthly employment and total wages each quarter for businesses with more than one location. This allows the program to capture business births and deaths in a timely and frequent manner and accurately capture changes in ownership as a result of mergers and acquisitions.

BLS links the microdata for each business establishment across quarters to create a longitudinal record. These data are available starting in 1990 through the most recent data available: second quarter 2016. This linked

microdata file serves as the sampling frame for BLS establishment-based surveys such as the Current Employment Statistics (CES), a key survey used for the publication of the monthly Employment Situation. Other BLS programs that use the QCEW microdata for sampling purposes include the Job Openings and Labor Turnover Survey (JOLTS), Occupational Employment Statistics (OES), Producer Price Index (PPI), Survey of Occupational Injuries and Illnesses (SOII), National Compensation Survey (NCS), including the Employment Cost Index (ECI) and Employer Benefits Survey (EBS), and the new Occupational Requirements Survey (ORS). The Local Area Unemployment Statistics (LAUS) program also uses the QCEW as its source of employment when CES estimates are not available.

In addition, BLS publishes Business Employment Dynamics (BED) statistics drawn from this linked microdata set. BED statistics are created from the linked individual business establishment records that are tabulated to create aggregate time series for national and local business establishment openings, closings, expansions, and contractions, all by industry. Over the years, additional variables have also been created, including establishment age, survival rates, and firm size.

The QCEW program publishes tabular data for the nation, states, metropolitan statistical areas, and counties at a detailed NAICS 6-digit industry level about 6 months after the end of the reference quarter. The release date for QCEW data has been moved up by a total of 3 weeks since 2012. The data are valued for their comprehensiveness, accuracy, relevance, and timeliness.

Business Employment Dynamics statistics are published in the month following the release of the QCEW tabular data. These statistics have gained a wide user base as economists and other analysts continue to examine the role of employment dynamics in the U.S. economy. Key user groups of BED statistics include the Federal Reserve System, the Small Business Administration, and academics.

Key users of tabular QCEW data include Congress, state and local economic development agencies, state revenue forecasters, and numerous Federal agencies. Over $300 billion in public funds are allocated based on QCEW data.

Among the many users of QCEW data, four demonstrate some of the data's varied roles:
- The Employment and Training Administration (ETA) uses QCEW data to measure the solvency of unemployment insurance trust funds and to develop the statistical adjustment models for measuring quarterly performance of Workforce Innovation and Opportunity Act (WIOA) funded core programs.
- The Bureau of Economic Analysis (BEA) uses the quarterly QCEW data to develop county, state, regional, and national personal income estimates, a component of the gross domestic product, and to conduct related statistical research and analysis. In 2015, covered workers received $7.385 trillion in pay, representing 94.0 percent of the wage and salary component of personal income and 40.9 percent of the gross domestic product.
- Census Bureau
  - Since 1990, BLS has shared NAICS codes with the Census Bureau to improve industry coding consistency and reduce respondent burden and costs. The Census Bureau uses these industry data in its Business Register, which serves as a source of sampling frames for frequent business surveys (such as the Annual Survey of Manufacturers) and as a basis for statistical tabulations. The most important benefits of this data-sharing project are relieving American businesses of unnecessary response burden, improving industry coding for the Census Bureau, improving usability and promoting consistency between federal statistical products, and reducing redundancy between agency statistical programs, to the exceptional benefit of the American taxpayer.

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- o In addition, after states and BLS have edited and curated the microdata, the QCEW data file is sent to the Census Bureau, where the data serve as a primary input for the Longitudinal Employer-Household Dynamics (LEHD) program.
  - o QCEW data are also used to calibrate the joint BLS-Census Current Population Survey after each decennial census.
- Outside researchers also apply for access to the QCEW microdata in a protected environment for projects that are relevant to the mission and scope of BLS.

By publishing QCEW and BED data, and by sharing these data amongst our statistical partners, BLS provides informational infrastructure that enhances the ability of the public and private sectors to make evidence-based decisions.

Advantages: The QCEW-BR contains data for all industries (including government), and coverage is mandatory, therefore compliance is high. In addition, the data set has consistent terms, is accurate, timely, relevant, and has a strong validation process. The QCEW-BR is sharable, subject to state data sharing restrictions. It is also a high frequency data set with quarterly data collection for monthly employment values. The QCEW data set is sustainable and scalable. There are a number of matching projects and new data products that can be developed with little or no new response burden at little or no additional cost (i.e., nonprofit data, etc.).

Considerations:
Exclusions from QCEW include self-employed workers, most agricultural workers on small farms, all members of the Armed Forces, elected officials in most states, most employees of railroads, some domestic workers, most student workers at schools, and employees of certain small nonprofit organizations.

There are some states who do not agree to share their data. A law change allowing for full data sharing would enhance the usability of QCEW data.

Global Legal Entity Identifier Foundation, Concatenated Data File
The Global Legal Entity Identifier Foundation (GLEIF) publishes the updated GLEIF Concatenated File daily. This file contains the content of the individual files, published by the Legal Entity Identifier (LEI) issuing organizations, which list all LEIs issued to legal entities and related LEI reference data. The data provides information on a legal entity identifiable with an LEI.

Advantages: The key advantage of the GLEIF Concatenated File, relative to the other sources noted, is that it is publicly available. The Global Legal Entity Identifier Foundation notes on their web site, "The drivers of the LEI initiative, i.e. the Group of 20, the [Financial Stability Board] and many regulators around the world, have emphasized the need to make the LEI a broad public good. The Global LEI Index, made available by GLEIF, greatly contributes to meeting this objective. It puts the complete LEI data at the disposal of any interested party, conveniently and free of charge."[50] The GLEIF Foundation will also be collecting information on parent and subsidiary entities during the annual re-registration for LEI numbers in 2017, and plans to continue this data collection in future years.[51]

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[50] "Introducing the Legal Entity Identifier (LEI)." Global Legal Entity Identifier Foundation. <https://www.gleif.org/en/about-lei/introducing-the-legal-entity-identifier-lei>. Accessed 12/9/2016.
[51] https://www.gleif.org/en/lei-data/access-and-use-lei-data/level-2-data-who-owns-whom

Considerations: While the LEI is intended to be a universal and open identifier, coverage is currently low. As of the time writing this there are fewer than 500,000 LEIs issued globally, though this number is expected to increase over time as government's and institutions mature their processes using this identifier. Additional considerations regarding application of the LEI can be found in the November 2015 *Progress report by the Legal Entity Identifier Regulatory Oversight Committee (LEI ROC).*[52]

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[52] Available at: https://www.leiroc.org/publications/gls/lou_20151105-1.pdf

Table A1: Options for Authoritative Sources

Component Agency or Office	Data set Name	Purpose of the Data Collection	Access Restrictions, Update Frequency and Lags	Coverage	Definition of "Company"	Unit of Analysis, Corporate Structure and Relationships	Quality of Fields for Matching
U.S. Census Bureau	Business Register	To provide a current and comprehensive database of U.S. business establishments and companies for statistical program use.	The Business Register information is confidential [Title 13 and Title 26, US Code]. Access is restricted to persons specially sworn to uphold the confidentiality provisions of Title 13 and Title 26. Data are updated continuously, update frequency varies by sources; lags vary by the reference period of the sources.	Establishments of all domestic businesses (except agriculture, forestry, fishing, hunting, rail transportation, the U.S. Postal Service, elementary and secondary schools, colleges and universities, labor organizations, political organizations, religious organizations, public administration, and private households) and organizational units of multi-establishment businesses. The Business Register (BR) covers more than 160,000 multi-establishment companies, representing 1.8 million affiliated establishments, 5 million single establishment companies, and nearly 21 million non-employer businesses.	An establishment is a single physical location where business transactions take place and for which payroll and employment records are kept. Groups of one or more establishments under common ownership or control are enterprises. A single-unit enterprise owns or operates only one establishment. A multi-unit enterprise owns or operates two or more establishments.	Establishment-based.	The Business Register is one of the most complete, current, and consistent source of establishment- based information about U.S. businesses, and is essential to assuring full coverage and high quality in Federal economic statistics programs. Examples of quality considerations for this source include: - The annual Company Organization Survey covers 30 percent of multi-unit companies and a small sample of firms that were single-unit firms in the most recent quinquennial Economic Census, so establishment openings and closings in the firms not covered may not be reflected in the business register until after the next Economic Census (though the Census Bureau takes measures to address this). - The business register is divided into employer and non-employer business registers based on payroll employment. Some firms lease their employees from Professional Employer Organizations (PEOs) or use independent contractors. Such firms may appear in the non-employer business register despite having large revenues and many leased and/or contract employees. (https://www.census.gov/econ/overview/mu0600.html)

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| U.S. Bureau of Labor Statistics-Office of Employment and Unemployment Statistics (OEUS) | Quarterly Census of Employment and Wages (QCEW) Business Register (BR) | To provide a quarterly census of all establishments under State unemployment insurance programs, representing about 98 percent of employment on nonfarm payrolls. This database of U.S. business establishments serves as the basis for multiple statistical programs; Sampling frame & benchmark(CES, JOLTS, PPI, OES, LAUS, SOII, and NCS, which includes the ECI, EBS and ORS), labor market research, Business Employment Dynamics (BED) data. | All microdata are confidential subject to BLS non-disclosure standards.

The QCEW BR is updated quarterly, and the data become available 6 months after the reference cycle. | Employment, wages, and administrative data (name, location, etc.) for over 9.5 million establishments covering approximately 98% of all employment. | An economic unit that produces goods or services, usually at a single physical location, and engages in one or predominantly one activity. --Potential lay synonyms: business, worksite, brick& mortar, site, storefront. Lay users my use "establishment" interchangeably with "firm" In the QCEW BR, however, there is a significant distinction between the two terms. | Establishment-based.

Multi-unit enterprises may use multiple EINs, and they may use different ones when reporting to different Federal agencies, complicating the matching process. The data set indicates whether an establishment is a single or multi-location establishment. | In order to ensure the highest possible quality of data from the QCEW program, BLS and the States verify and update, if necessary, the NAICS, location, and ownership classifications of all units on a 3–year cycle. Government units in public administration are not reviewed routinely. |

Internal Revenue Service - Statistics of Income	**Business Master File**	IRS: The purpose of data collection is mainly for determining Federal tax liability for businesses required to file. SOI: The data are used to produce statistics on income, deductions, credits and other taxes, as reported by businesses. The current design is a probability sample stratified by Business type (as indicated by the IRS form filed) and either by size of total assets alone or size of total assets and a measure of income.	Federal Tax Information (FTI) is confidential [Title 26, US Code] and shared with other government agencies under IRC 6103(j) provisions. Data are updated continuously; Data becomes available weekly.	IRS: All Federal business tax returns that meet IRS filing requirements. SOI: Selected active Federal business tax returns based on SOI's sample design.	Definition of "company" is based on Title 26 requirement.	Tax Return. The data set consists of individually filed returns which can represent: corporations (a single establishment; subsidiary establishment or consolidated filed returns representing a group of establishments); partnerships and other pass-through entities; or sole proprietorships.	Most matching is accomplished using the EINs provided by entities as reported on Federal tax returns. SOI uses exact matching with EINs and data processing begins with information already extracted for IRS administrative purposes. SOI performs limited internal "data cleaning" for statistical purposes. This includes organizing data to make it structurally consistent, coding data items to make them analytically useful, and validating values to ensure mathematical consistency. Contact information is validated as part of routine administrative processing of returns at the time they are received by the IRS.
Global Legal Entity Identifier Foundation	**GLEIF Concatenated File**	The Global Legal Entity Identifier Foundation (GLEIF) publishes the updated GLEIF Concatenated File daily. This file contains the content of the individual files, published by the Legal Entity Identifier (LEI) issuing organizations, which list all LEIs issued to legal	Publicly available without restrictions	All legal entities are eligible to receive an LEI. As of the time writing this there are 465,397 LEIs issued globally.	As defined in ISO 17442, the standard underlying the Legal Entity Identifier (LEI), the term 'legal entity' includes, but is not limited to, unique parties that are legally or financially responsible for the performance of financial transactions or have the legal right in their jurisdiction to enter independently into legal contracts, regardless of whether they are incorporated	Legal entity based	Very high quality where available. There is a validation effort done whenever an entity applies for an LEI. This ensures a distinct unique record exists for each identifier (). The LEI identifies an entity across multiple data sets where required by regulation. See the following report for additional information: https://www.leiroc.org/publications/gls/lou_20151105-1.pdf

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		entities and related LEI reference data. The data provides information on a legal entity identifiable with an LEI			or constituted in some other way (e.g. trust, partnership, contractual). It excludes natural persons, but includes governmental organizations and supranationals.		

APPENDIX B: Best Practices for Matching Data

The Workgroup's Methods Inventory yielded a variety of strategies in data collection and data integration which Federal agencies use to work around issues in matching and entity resolution. See Appendix E for specific code examples.

DATA COLLECTION

Federal agencies maximize the use of identification approaches during the data collection phase to improve matching to prevent downstream challenges in matching and entity resolution. These approaches focus on identifying the right entity and industry or corporate relationships, and validating geographic and industry information.

Identifying the right entity, right level and right relationship

Relationships

Federal agencies often encounter complex industry or corporate structures, and work to identify the correct entities, corporate and industry levels, and corporate and industry relationships at the point of data collection to avoid challenges in matching or entity resolution later.

- For example, a facility may be owned by one company but another may control its operation (this was the case with the Deepwater Horizon disaster – the rig was owned by Transocean, but leased by British Petroleum (BP) and operated by Transocean and other contractors under BP's direction[53]).
- There may also be cases where a facility has one or more contractors who each have their own compliance, regulatory and reporting requirements co-located within the same facility, such as a steel mill.
- Another scenario exists in the case of joint ventures, where a facility may be owned and/or operated by multiple parties. Additionally, there may be an owner or operator entity being captured at the facility level, but also some degree of org parent information, whether an ultimate global parent or domestic parent.
- Lastly, Figure B1 shows an agency example where Facility 1 is owned by Organization B, but operated by Organization A; Organization B also owns Facility 2 and is part owner (via Joint Venture or other vehicle) of Facility 3, Organization B lists as its ultimate parent Organization E, however there may be intermediate entities not captured; Organization B also retains Organization C as a consultant to aid in preparation of regulatory documentation for Facility 3. Facility 3's remainder owner is Organization D which lists Organization F as its parent, however Organization F might not be its ultimate parent.

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[53] See also: Final Report of the National Commission. http://oscaction.org/resource-center/commission-reports-papers/

**Figure B1: Example of a Complex Industry Structure
at the point of Data Collection**
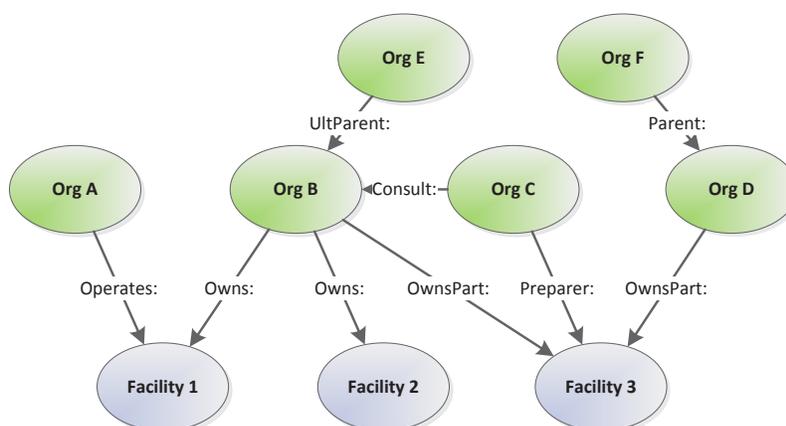
It is due to cases such as these that applications and data owners need to be cognizant of the importance of very robust and clear guidance, and good data structures for capturing this information, paying close attention to the contextual relationships.   Agencies have found that relational, NoSQL, RDF triple stores and/or graph databases work well for capturing these types of complex relationships in the data.

Establishment Facility Name

Often, difficulties in matching stem from inconsistent approaches and guidance for providing establishment names, for example providing only one organization name for a campus which comprises multiple operations and facilities which report to agencies separately from each other (for example a large university which may have physical plant and utilities versus labs and other facilities each with independent permitting, compliance and reporting responsibilities).   In some cases, one may need sufficient information in order to disambiguate, requiring enough information and consistency in reporting. In other instances, one may need to merge and de-duplicate data, and a lack of consistency can also be an issue in achieving this.

Table B1: Variations in Establishment Name

Establishment Name
Widgetco
WidgetCo Plant 2
Plant 2
Second Unit Widget Co

Contact Information

Data elements such as email addresses or telephone numbers can also be used to identify relationships in data and assist in entity resolution; for example one single point of contact is associated with over 4,000 chain drugstores in EPA's Resource Conservation and Recovery Act data set. Similarly, telephone numbers can also be a useful tool in entity resolution.   As with the prior cases, data entry and reporting interfaces should include

validators to ensure proper formatting and values that appear valid. A number of JavaScript form validators exist [54] which can aid in these tasks.

Web sites, and e-mail addresses (after the "@" section) can not only serve as potentially valuable linking variables, but also as firm identifiers. Web sites and e-mail addresses are not subject to the same sorts of variation or mis-spellings that corporate names are. Similarly, while a corporation may have many regional telephone numbers, it will only have one domain name. Finally, companies will self-sort their economic activities into the appropriate Web domain names, likely based on activity, in cases where they undertake multiple, disparate business activities.

Geography-Related Fields

Address fields

As with entity reporting, for address fields, clear guidance and documentation needs to be implemented for collection interfaces, as well as providing the appropriate data structures for capturing separate values for physical and mailing/administrative address.

Ideally, systems should provide geocoding capabilities which can validate and standardize entered street addresses, i.e. 528 South Fourth Street standardized to 528 S 4th St per USPS standard to aid in disambiguation. For large factories, in particular, it is also useful to specify where on the establishment the latitude and longitude will be established. Geocoding APIs typically also provide an effective mechanism for parsing and standardizing street address elements, such as house number (528) / street directional (S) / street name (4th St). Additionally, a geocoding API[55] can provide latitude/longitude values which can easily be used to display a web map view for additional visual verification of site locations in reporting interfaces.

There are also cases where establishments might not have conventional street addresses, for example remote facilities in oil and gas sectors, or many Puerto Rico addresses which are linear addresses by distance marker along a route. Some typical cases may involve public works infrastructure where often the City Hall address is provided, or a PO Box is provided in place of the physical address, when quite likely both are wanted. Many systems also struggle to differentiate adequately in the case of multi-establishment addresses, whether office buildings, suites, incubators or industrial parks sharing an address, or other similar cases. Foreign addresses are also often problematic in many systems. Table B2 contains examples of commonly-encountered but difficult-to-resolve addresses.

Table B2: Examples of Common, Difficult-to-Resolve Addresses:

Street Address 1	City	State	ZIP
PR 181, KM. 18.2, BO. ESPINO	SAN LORENZO	PR	00754
NW1/4 S27 T48N R77W	JOHNSON COUNTY	WY	99999
H.C. 64 BOX 204	MCFADDEN	WY	82083

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[54] "Validators," *formvalidation.io*, Retrieved 09 Sep 2016
http://formvalidation.io/validators/

[55] "Geocoding", *Wikipedia*, Retrieved 09 Sep 2016
https://en.wikipedia.org/wiki/Geocoding

47 MI W OF LARAMIE ON I-80 EXIT 267	LARAMIE	WY	82070
43 32' 11" N 108 49' 29"W	KINNEAR	WY	82516
90TH SUPPORT GROUP, DEV BLVD 320	CHEYENNE	WY	82005

When conventional street addresses cannot be provided, where appropriate and feasible, a clear mechanism should be provided for capturing alternative addressing schemes to improve how these can be dealt with and resolved. For example, WGS84 lat/long values are relatively easy to capture and collect with the advent of ubiquitous GPS technology on mobile devices, as well as the ease of embedding web based mapping applications which can capture a coordinate. When capturing data via latitude/longitude, existing data standards should be implemented, such as ISO 6709:2008[56] for entry and representation of latitude/longitude values. Additionally, consideration should be given to decimal degrees and precision for entry of latitude/longitude. Public Land Survey System (PLSS) references such as NW1/4 S27 T48N R77W are tied to Bureau of Land Management Survey Grid and BLM has web services for determining location based on the descriptive elements[57]. Guidance and consistency in entry of the elements to facilitate parsing for a web service would be another necessary consideration in implementing PLSS entry.

As a final caveat, it should also be noted that postal municipality might not be the same as the jurisdictional municipality where the establishment is located.

Latitude / Longitude Fields

Latitude/Longitude, where available, is a useful data element to use for proximity matching. Degree of precision of the entered latitude/longitude data impacts spatial resolution - and while the distance spanned by a unit of measure will typically be consistent for north/south parallels of latitude, it will vary for east/west meridian values as a function of varying latitude due to meridian convergence at the poles, as shown in Figure B2:

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[56] "Catalog: ISO 6709:2008", *International Standards Organization*, Retrieved 09 Sep 2016
http://www.iso.org/iso/catalogue_detail.htm?csnumber=39242
[57] "GeoCommunicator Services," *Bureau of Land Management*, Retrieved 09 Sep 2016
http://www.geocommunicator.gov/geocomm/services.htm

Figure B2: Meridian Convergence
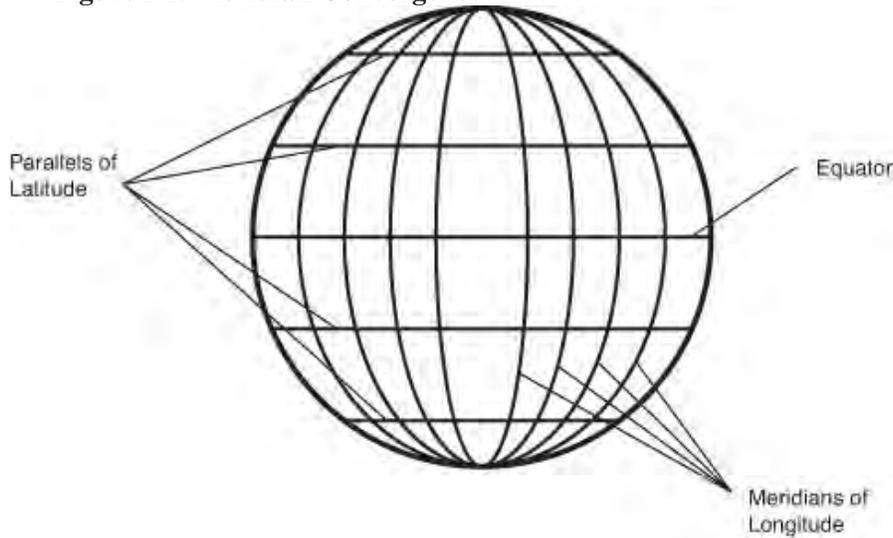
Image source: National Ocean and Atmospheric Administration)

Typical distance values corresponding with various levels of angular precision are as follows:

Table B3: Typical Distance Values Corresponding with Various Levels of Angular Precision

Decimal places	Decimal degrees	DMS	Qualitative scale that can be identified	N/S or E/W at equator	E/W at 23N/S	E/W at 45N/S	E/W at 67N/S
0	1.0	1° 00′ 0″	country or large region	111.32 km	102.47 km	78.71 km	43.496 km
1	0.1	0° 06′ 0″	large city or district	11.132 km	10.247 km	7.871 km	4.3496 km
2	0.01	0° 00′ 36″	town or village	1.1132 km	1.0247 km	787.1 m	434.96 m
3	0.001	0° 00′ 3.6″	neighborhood, street	111.32 m	102.47 m	78.71 m	43.496 m
4	0.0001	0° 00′ 0.36″	individual street, land parcel	11.132 m	10.247 m	7.871 m	4.3496 m
5	0.00001	0° 00′ 0.036″	individual trees	1.1132 m	1.0247 m	787.1 mm	434.96 mm
6	0.000001	0° 00′ 0.0036″	individual humans	111.32 mm	102.47 mm	78.71 mm	43.496 mm
7	0.0000001	0° 00′ 0.00036″	practical limit of field surveying	11.132 mm	10.247 mm	7.871 mm	4.3496 mm

Latitude/Longitude comparison will be discussed later in this document under Haversine Distance matching.

Industry Fields

NAICS/SIC Codes

North American Industry Classification (NAICS)[58] and Standard Industrial Classification (SIC)[59] Codes, may also be a helpful asset toward matching or disambiguating establishment records. For example, certain NAICS and SIC codes are relatively rare, such as Nuclear Electric Power Generation - NAICS: 221113. Additionally, groupings of related and unrelated NAICS/SIC codes could be used in business rules, such as codes which typically do not appear within the same establishment. SIC codes have technically been retired, however some agencies and data sets still use SIC, i.e. SEC, OSHA and others. One thing to note is that NAICS codes are revised on a regular cycle of 5 years, the most recent revisions being 2012 and 2007. As such, in capturing NAICS data, it would be useful to also reference the NAICS version being used, i.e. NAICS:2012. The U.S. Census Bureau provides reference data on NAICS codes, which can be used to populate API-based entry or picklists as opposed to allowing manual entry of codes, to reduce data entry errors.

Hierarchy Field

Knowing which establishments are part of which parent companies (updated quarterly) is incredibly useful for matching efforts at different employer levels.

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[58] "North American Industry Classification System, " *US Census Bureau*, Retrieved 09 Sep 2016 http://www.census.gov/cgi-bin/sssd/naics/naicsrch?chart=2012

[59] "SIC Division Structure," *Occupational Safety and Health Administration*, Retrieved 09 Sep 2016 https://www.osha.gov/pls/imis/sic_manual.html

COLLECTION METHODS

Leveraging Existing Data via API for Entity Resolution: Example case at US EPA

Existing, previously-collected data may be one of the best tools available for entity resolution at the point of data entry. It is critical to highlight examples that enable agency employees to make an internal case for changes. Agencies should note that EPA has begun leveraging its Facility Registry Service (FRS)[60] for that purpose. FRS integrates data on over 4 million establishments and places of interest from across 90 different systems via master data management and a combination of algorithmic methods and manual data steward curation. The FRS team developed an API to improve integration at the point of data collection, by allowing reporters to identify establishments by searching and retrieving information that was previously reported via the various systems that FRS ingests data from.

This capability is illustrated in the following screen shots, in which a user searches for "Finch Paper" on Glen Street in Glen Falls, NY:

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[60] "Facility Registry Service," *US Environmental Protection Agency, Office of Environmental Information*, Retrieved 09 Sep 2016 https://epa.gov/frs

Figure B3: *Entity Search to call API*
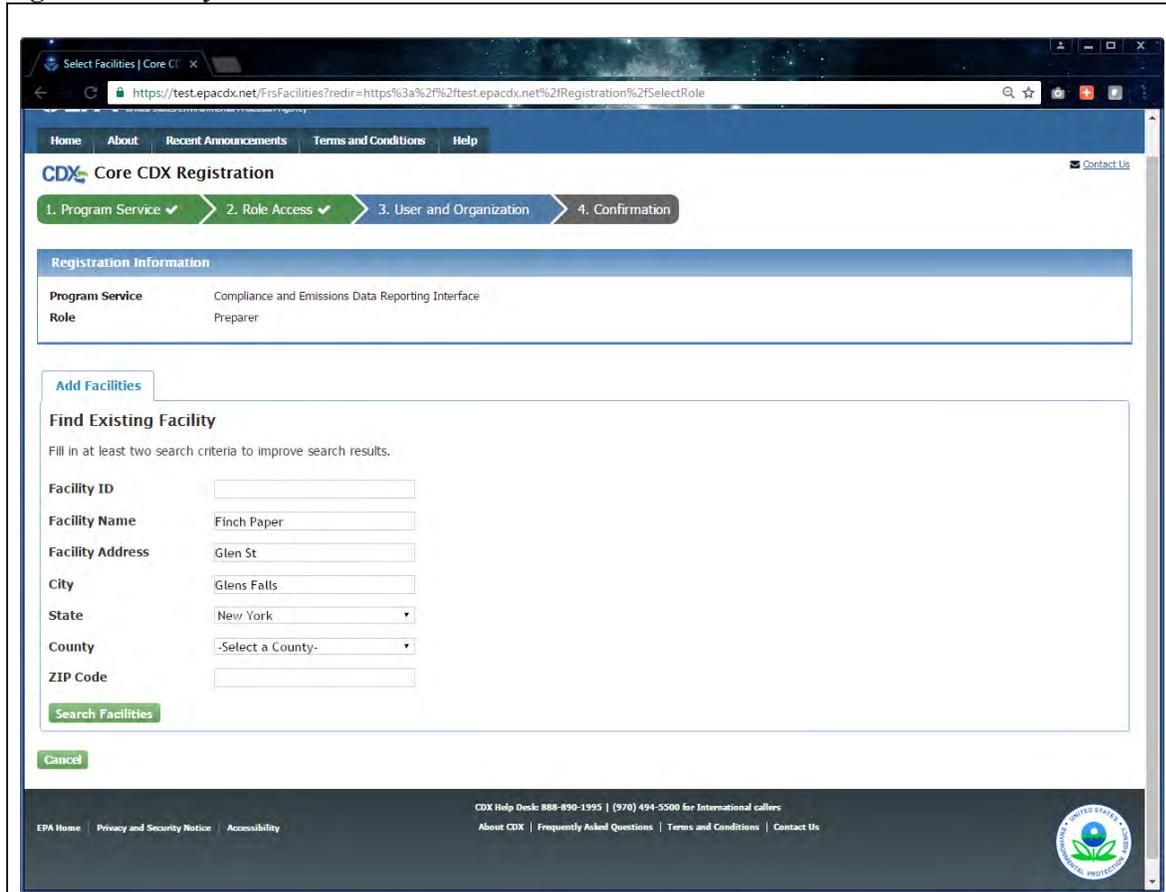
Figure B4: Entity API Search Results

The application would then allow newly reported information to be associated with existing, known establishment information and identifiers.

Initially this API was a read-only API for data retrieval, however it has since evolved to provide additional capabilities, including:

- The ability to submit a suggested update (for example, if an establishment had a typo in its information or if it was acquired by a new firm and the establishment's name needs to change), or
- if a new facility is being reported, the API will allow a master record and unique identifier to be generated in real-time, which will then subsequently be available for other queries.

An example of creating a new facility is shown in the following figure:

Figure B5: Entity Creation via API - Search failure enables creation of new record
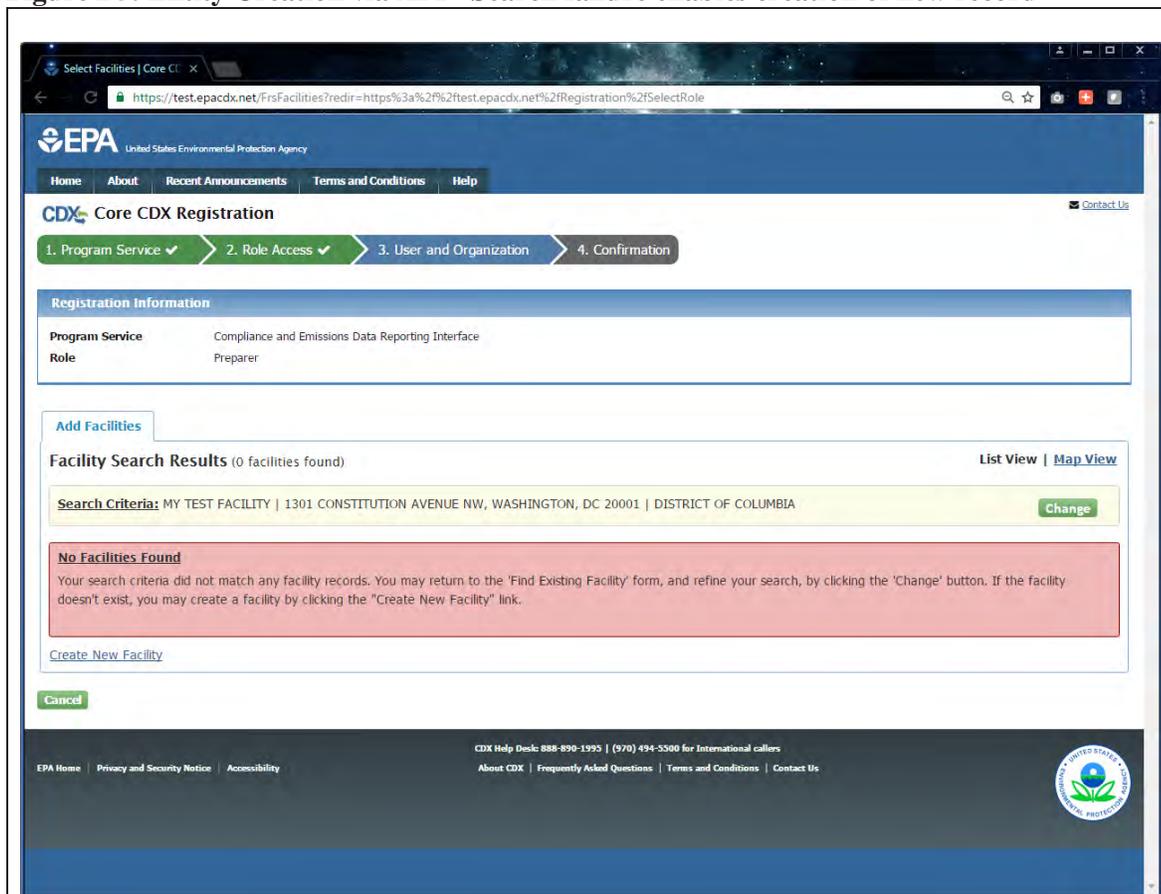
On clicking the "Create New Facility" button, the user is then presented with a view that presents the information that has been entered, which is standardized and geocoded.

Figure B6: Entity Creation via API - Validation, Standardization and Geocoding of New Record

This reporting interface component is built on an API and has been componentized for reuse across EPA programs, and in the last two years has been integrated into multiple reporting systems, such as the Toxic Release Inventory (TRI), TSCA Chemical Data Reporting (CDR), Compliance Emissions Data Reporting Interface (CEDRI) and others. Within the TRI program, they have seen significant data quality improvements and have estimated substantial burden reductions (as further described in the white paper).

Data Preparation

Prior to attempting matching, some basic exploratory data analysis is recommended to identify the types of data quality challenges noted in the main body of the white paper.

Data sets to be matched may be scattered across different systems, different architectures, and disparate tables, and that preprocessing may need to take place in order to extract the data for analysis, via Extract-Transform-Load (ETL) processes or in the case of loading to systems designed for big data analytics such as HDFS/MapReduce, Extract-Load-Transform as appropriate[61].

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[61] Davenport, Robert J. (2008), "ETL vs. ELT: A Subjective View", Retrieved Sep 12 2016
http://www.dataacademy.com/files/ETL-vs-ELT-White-Paper.pdf

It should also be considered that within a data set, there may be substantial turnover of establishments (20% or more within some sectors over a 5-year timespan), via acquisitions, mergers, business startups and closures which can affect name matching; as such, timestamps and windowing within timeframes may be necessary.

Cleansing to Address Inconsistent Data Formats

In cleansing records for entity matching, some key processes include converting all characters to the same case, and removing special characters, extraneous punctuation and extraneous white space between words.

Stop word lists are often used to allow algorithms to ignore what may be extraneous noise within the corpus of entities to be matched, such as common words which may not add value like "The" or values that are often associated with establishments like "Inc." or "LLC." Preprocessing can aid in stripping out these types of stop words. Alternatively, one may look to algorithmically replace these values, mapping to standardized values, such as "Limited Liability Company" "LLC" "L.L.C." "L L C" standardized as "LLC."

In applying cleansing steps, care needs to be taken in terms of what order different processing steps are taken, along with replacement rules. For example, if stop-word lists result in the omitted word being treated as a space rather than null, it may result in failed matches.

Data Enrichment to Mitigate the Effects of Missing Fields

Toward entity resolution, it may be useful to generate derived attributes to assess data quality, identify potential data quality issues, and to standardize data fields for improved matching. This includes use of geocoding/reverse geocoding engines to generate standardized address fields and latitude/longitude values, along with spatial indexing or other processes for comparing locations to other geographies such as county polygons or jurisdictional boundaries.

Enrichment via geocoding can be a powerful tool to aid in entity matching, however it should be noted that modern geocoding algorithms still suffer from some limitations. As noted in the data elements section, address fields may include non-standard, descriptive types of values, particularly *relative values*, such as "35 miles north of Gunstock on Highway 17" or "Across from the Empire State Building." A geocoding algorithm would need to be sophisticated enough to be able to identify the features and relationships in the descriptive value. While progress continues to be made in this area, most current geocoding algorithms cannot handle these types of relative values. Geocoders can however typically handle references to street intersections.
Geocoders are most adept at handling *absolute values*, such as standard address types. As noted in the data collection section, geocoding engines incorporate algorithms for address parsing, normalization and standardization, for example parsing and standardizing "One South Riverton Avenue" as House Number: "1" Prefix Directional: "S" Street Name: "Riverton" Street Type: "Ave". It should however be noted that geocoders function optimally when input parameters have already been identified as discrete data elements, such as Address / City / State / ZIP. Geocoders also generate match values, returning values corresponding to whether a known match was made at the house number level, street level, street intersection, city or ZIP, providing varying degrees of confidence. Geocoding engines rely on external data sets for matching and comparison, such as Census TIGER data[62] and others, and as such will leverage these data sets to provide a latitude/longitude value, which is typically interpolated along a street segment, with the geocoding data set providing data on address ranges as shown in the figure below:

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[62] "Census TIGER data", *US Census*, Retrieved Sep 12 2016
https://www.census.gov/geo/maps-data/data/tiger.html

Figure B7: Street Segment Interpolation
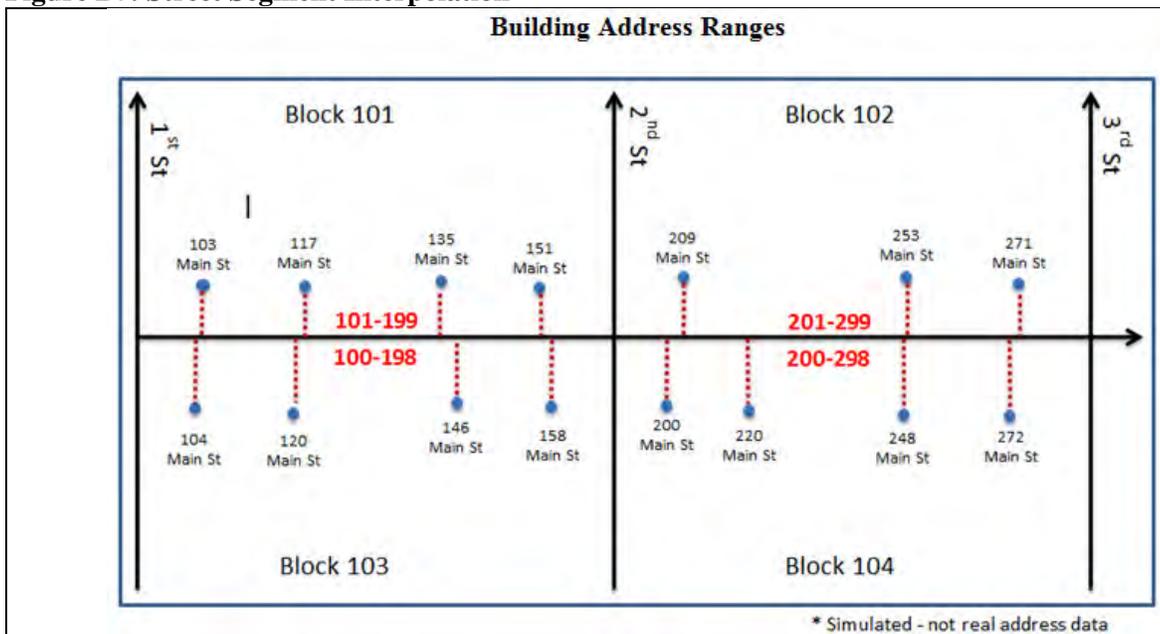
Image source: US Census

Note that the interpolated value calculated will be directly on the street segment centerline. In order to provide a more realistic value, an offset may either be supplied as a default, or may need to be supplied as a parameter to the geocoding engine in order to provide a coordinate offset from the street centerline in the appropriate direction, based on even/odd address number. Some commercial providers such as HERE may also provide point addresses, which attempt to provide actual rooftop or parcel centroid coordinates for addresses. Where these types of match values are available, they will be displayed in the match results.

Geocoding engines can also typically perform *reverse geocoding*, which accepts a latitude/longitude value, and returns the closest matching street address. While caution should be exercised in using at the street address level, this capability can potentially be useful for enriching data which has incomplete or unreliable city/state/ZIP data.

Data to be matched can also be augmented via spatial indexing - this entails testing a location value against polygonal values[63], such as comparing entity latitude/longitude to a county polygon boundary. Spatial databases and GIS tools can provide this capability. Some useful geographies for analysis may include county polygons (note: it is more reliable to use county FIPS codes[64] rather than county names, as county names are

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[63] "Point-In-Polygon", *Wikipedia*, Retrieved Sep 12 2016, https://en.wikipedia.org/wiki/Point_in_polygon

[64] "2010 FIPS Codes for Counties and County Equivalent Entities", *US Census Bureau*, Retrieved Sep 12 2016 https://www.census.gov/geo/reference/codes/cou.html

not unique) as well as other Census geographies such as Place[65] or Block[66] (as appropriate, and if other data elements reference these identifiers).

ALGORITHMIC MATCHING METHODS

Deterministic Methods:

The deterministic method is a process of data linkage that requires two records to agree on a pre-determined set of variables to conclude the pair as a link. A match is defined as records from two files that are truly the same unit. A link is defined as two records that are designated as the same unit based on their characteristics and decision rules. While matching on employer name or EIN may seem simple, great caution should be taken to ensure that the data elements from the matched sources are truly comparable and the resulting comparisons are meaningful.

The variables to be used are usually established by subject matter experts and require a significant amount of human review. Deterministic matching works best when there are unique IDs to match, or when there are reliable rules and high quality data elements that can be used for matching, such as email addresses, telephone numbers, dates of birth, NAICS or SIC codes - ideally with multiple elements used in combination - for example, a validated ZIP code by itself might not be sufficient for deterministic matching and would need to be combined with other data elements. It would also potentially be useful in deterministic processing to disambiguate from other similarly-named entities at different locations. Similarly, one could look at relationships within values such as related industrial classifications within NAICS or NAICS-SIC crosswalks[67].

In using deterministic approaches, consider business rules that may affect relationships between entities (for example, a common email or phone number that is at the HQ office but is shared across multiple entities, or one unique email address that shows up across 4,000 chain pharmacy locations).

Relationships between each individual establishment to the HQ office can be established but do not conflate individual entities. Also, as noted in the data elements discussion, consider that there may be third parties involved in the data submission process, such as consultants who are doing preparation on behalf of an establishment, as such, roles, wherever available should be considered. For example, the same law firm may prepare filings for many small companies and may be listed as the "contact person" and "contact mailing address" for all these employers. Linking on this field will create many erroneous links. The usefulness of company websites and Wikipedia pages in deterministic matching of parent companies with subsidiaries should not be understated.

In deterministic matching, it is much more efficient to have automated matching methods err on the side of matching too much, and having an analyst remove erroneous matches than vice-versa. It is much less time-consuming for an analyst to remove erroneous matches than to search out true matches.

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[65] "Geographic Terms and Concepts - Place," *US Census Bureau*, retrieved Sep 12 2016, https://www.census.gov/geo/reference/gtc/gtc_place.html

[66] "2010 Census - Census Block Maps," US *Census Bureau*, retrieved Sep 12 2016, https://www.census.gov/geo/maps-data/maps/block/2010/

[67] "NAICS to SIC Crosswalk", *NAICS Association*, Retrieved Sep 14 2016 https://www.naics.com/naics-to-sic-crosswalk/

Probabilistic Methods

Probabilistic methods are used to assign a score to two record pairs then set criteria determining link status. Many methods use three ranges of scores, a link with a high score, a non-link with a low score, and a possible link if the score falls in an indeterminate range. The possible links are then reviewed to determine match status.

In attempting to match across large data sets, blocking is an additional strategy that can be used when doing probabilistic record linkage in order to reduce the size of the comparison space. This strategy is used to group similar records before performing the comparison. For example, a full Cartesian join of two files with 450,000 records would yield over 200 billion comparison pairs. It can be seen as these data sets grow the number of comparison pairs can be computationally prohibitive or processing would take an unfeasible amount of time.

There are other strategies that can be used for the probabilistic matching such as standardizing names or fields prior to matching. In some cases edit distance measures can be used to rescale the component weights on a given field instead of giving a field a binary agree/disagree designation. Considerations also need to be made on how to handle missing data when using these methods. In some cases two missing fields should be considered a match while in others they should be non-deterministic or even a non-match. Other ways have been suggested to refine the *m-* and *u*-probabilities described previously using a frequency scaling such as the one described in *Matching and Record Linkage* by William Winkler[68].

Considerations and Clarifications in Probabilistic Entity Resolution Algorithms

1. **Entity Resolution** is not **Classification.** Simply identifying whether or not two records match or do not match is classification while entity resolution develops a dynamic entity using metadata.
2. **Entity Resolution** is not **Clustering.** The goal of clustering is to identify similar groupings of entities; the goal of entity resolution is to reconcile different iterations of the same entity down to their common iteration.

Algorithms for Comparing Latitude/Longitude

Comparisons of latitude/longitude pairs for proximity assume that coordinates contain valid values. Wherever possible, a prior data QA step should be taken to ensure that values pass reasonable checks. Common issues specific to entered lat/long values include reversal of lat/long values to long/lat, omission of sign for hemisphere, and use of placeholder values, such as 0,0 or 1,1. Additionally, data sets may use differing standards, such as sexagesimal degrees-minutes-seconds versus decimal degrees. These will need to be parsed and converted to decimal values. One way to perform a validation is to use a reverse geocoder on the address and compare the reverse geocoding result to the provided latitude/longitude value.
Haversine Distance: The Haversine Distance formula[69] can be used to compare spatial latitude/longitude tuples by computing Great Circle surface distance[70] between locations.

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[68] Winkler, W. (2000). *Frequency-Based Matching in Fellegi-Sunter Model of Record Linkage*
[69] Williams, Ed (2011), "Aviation Formulary V1.46," Accessed Sep 12 2016
http://williams.best.vwh.net/avform.htm#Dist
[70] "Great Circle," *Wikipedia*, Accessed Sep 12 2016
https://en.wikipedia.org/wiki/Great-circle_distance

$$d = 2 \sin^{-1}\left(\sqrt{\sin\left(\frac{\varphi_1 - \varphi_2}{2}\right)^2 + \cos(\varphi_1)\cos(\varphi_2)\sin\left(\frac{\lambda_1 - \lambda_2}{2}\right)^2}\right)$$

where:

- φ_1 is first coordinate latitude in radians, φ_2 is second coordinate latitude in radians
- λ_1 is first coordinate longitude in radians, λ_2 is second coordinate longitude in radians
- d is computed angular distance between the points

Text Matching Algorithms for Entity Resolution

The following methods address challenges related to missing important data fields, or having inconsistent data formats in text fields, such as name and address fields. Depending on which data element is being matched across data sets, different algorithms can be applied.

Objective	Description	Examples
String Matching	Quantify permutations needed to convert one string to another	Edit Distance, Alignment, Phonetic
Distance Metrics	Apply physical distance measures to abstract concept of data objects	Similarity, Text Analytics
Relational Matching	Conjunctive view reliant on one data object's relationship to other objects	Set Based, Aggregate

String Matching

String matching algorithms are concerned with whether or not two strings say the same thing. Outlined in the table below, there are four essential approaches. They may, however, be further subdivided into exact element-by-element character or phonetic comparison.

Boolean Matching, is easily understood as a Yes or No, 0 or 1, match or non-match between two strings. It is the most simplistic of the group and is the core logic on which the subsequent algorithms operate.

Method	Description	Examples
Edit Distance	Quantified permutations to convert one textual string into another	Levenshtein, Jaro-Winkler
Jaccard Coefficient	Ratio of existence or absence of one entity's individual attributes in another	Jaccard
Phonetic Similarity	Pronunciation of letters are phonetically related on a 0 to 1 similarity scale, aka, fuzzy matching	Soundex, Translation

In the heavily-studied **Edit Distance**, similarity is quantified by physically measuring the permutations needed to convert one string into other. The core implementation of edit distance is Levenshtein, which penalizes for insertions, deletions and substitutions. Over time Levenshtein has been modified with additional costs for gaps (Sellers), transpositions (Smith-Waterman), and affine gaps, i.e., weighted costs per each of the actions or the location of where the permutation must be made (Gotoh).

Jaro Distance is a hybrid version of edit distance whose more popular counterpart, Jaro-Winkler, is considered a hybrid algorithm. Practically, Jaro slides along two strings, comparing nGrams along the way to quantify the number of characters appearing in the same position and the number of transpositions required for coincident

characters which must be reordered in one string to match the other. Its best application is with short strings, also it disobeys triangle inequality.

The **Jaccard Coefficient** is an element-by-element measure of intersection. Stated otherwise, it is the ratio of the intersecting set to the union set. The Jaccard Coefficient satisfies triangle inequality. One frequently-confused issue: the similarity version of Jaccard and Tanimoto Coefficients are identical, but their dissimilarity coefficients diverge due to triangle inequality. While this justifies the need for two separate algorithms, they are frequently credited as the Jaccard-Tanimoto Coefficient as both mathematicians independently published this ratio unbeknownst of each other.

Phonetic Similarity algorithms result in Soundex encodings, which sidestep misspellings and variations, by indexing a table of language-specific homophones for a string's Soundex encoding rather than searching the string itself. Two critical inputs to phonetic similarity are (1) discerning which language the string is written in and (2) knowing the context of the letters you are matching. The crucial former prerequisite is accomplished by matching pronunciation rules of letter sequences using their location in the string ("sch" in German vs. "sz" in Polish at beginning of a string). The latter is accomplished by parsing the string into a sequence of phonetic tokens according to pronunciation rules in that language. The International Phonetic Alphabet (IPA) is popularly used to identify tokens with corresponding sounds, though frequently criticized for being too fine of match.

Distance Metrics

While string matching compares strings element-wise, distance metrics incorporate a spatial element, measuring the literal distance between two entities using algorithms seen in the table below. The first three are inter-related, easy visualized by plotting the entities to be reconciled on a preference space with x and y axes. A discerning eye anticipates the obvious limitation of these, that only a certain number of attributes is practical.

Method	Description	Examples
Euclidean	'As-the-crow-flies' distance	L_2-Norm, Ruler, Spearman
Mahalanobis	Matching for centered and standardized distances	
Manhattan	Distance if following a grid-like path, turning corners	L_1-Norm, Taxicab, City-Block, Footruler, Rectilinear
Minkowski	Generic edit distance, of which Euclidean, Manhattan and Chebyshev are instances	Soundex, Translation
Chebyshev	Distance along axis on which the objects show greatest absolute difference	L_{max}-Norm, Chessboard
Text Analytics		Pearson Coefficient, Jaccard Similarity Coefficient
Vector Similarity		Cosine Similarity, TFIDF

__Minkowski Distance__[71] is the generalized distance between two points in a plane. Specialized forms include Euclidean, Manhattan and the less-common Chebyshev.

Mathematically, *__Euclidean Distance__* is Minkowski Distance squared. Practically, it is the equivalent of the bishop in chess in that it moves diagonally, or as-the-crow-flies. The Euclidian Squared Distance Metric is a variation with quicker processing time since it does not take the square root.

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[71] "Minkowski Space," *Wikipedia*, accessed Sep 12 2016
https://en.wikipedia.org/wiki/Minkowski_space

**Manhattan Distance** is mathematically the Minkowski Distance raised to 1; it is the same as Euclidean, except for the requirement of absolute value since it is not squared. Practically it is the equivalent of a knight, which makes L-shape moves. Its name is coined after the great borough of New York City, where pedestrians and cars must obey the laws of street corners.

Text Analytics

In contrast to the Minkowski distances, which scale similarity on a scale of 0 to 1, Pearson's Coefficient scales from –1 to 1, in other words fitting similarity along a line, making it a better choice for non-normalized data and when attributes' scales are undefined. Mathematically, it is the ratio between two points' covariance and standard deviation.

The _**Jaccard Similarity Coefficient**_ is mathematically the size, i.e., the existence of defined attributes using a binary 0/1, of the intersection of two points divided by the size of the union of the points.

Vector Similarity

First, a quick introduction to _**Vector Similarity**_. We construct a VSM (Vector Space Model) as a series of vectors quantifying frequency of a selected attribute inside a document. These vectors are subsequently assembled into a matrix, allowing easy algebraic manipulation. Two vector similarity functions are of particular note:

The widely-known bag of words model is enhanced to a 'bag of terms' with _**TF-IDF**_. Weighted TF-IDF incorporates local and global parameters, applying a logarithmic scale to account for a term's relative importance versus frequency of appearance. This allows the algorithm emphasize less-frequent terms' importance. TF-IDF normalizes any bias introduced into the vectors by keyword spanning, most commonly with the L2 (Euclidean) Norm. The equation is the row-wise multiple of two matrices: TF (Term Frequency, the local parameter): matrix of vectors of selected terms' frequencies of appearance in each document IDF (Inverse Document Frequency, the global parameter): diagonal matrix version of vector containing, for each term, the log of the number of documents divided by the number of documents in which the selected term appears

**Cosine Similarity** is most useful when it is known that two points have a high proportion of non-shared attributes. Mathematically, the attributes are presented in a vector, allowing the algorithm to find the dot product of the two points. It measures the angle of the vector rather than the magnitude. Theoretically this results in the angle between the two points' attributes; a 90° angle is perfect dissimilarity.

Relational Matching

Relational Matching algorithms retain many commonalities with Jaccard and Euclidean, but are mathematically differentiated since as a group they do not satisfy triangular inequality. Practically speaking, while the aforementioned algorithms measure similarity between two documents, relational algorithms broaden the playing field, incorporating a third document's attributes into the mix.

While the _**Tanimoto (Jaccard) Similarity Coefficient**_ is the same as the Jaccard Similarity Coefficient, the dissimilarity coefficient is where these two algorithms diverge. This is to say that Tanimoto is a proper similarity metric but its distance metric is not mathematically legal since it allows the two points to share commonality with a third point, causing it to disprove triangular inequality. In application, Tanimoto is preferred over Jaccard in cases when we want to allow the two points, themselves very different, to share commonalities with a third point. Mathematically, Tanimoto is the number of intersecting elements divided by the number of elements in either point.

**Dice's Coefficient** is mathematically the number of intersecting attributes divided into the total population of attributes, thus, as with Tanimoto, it shares a definition in its similarity metric version but Dice's dissimilarity

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coefficient is not the same as it does not satisfy triangle equality. Compared to Markowski's, Dice's coefficient is sensitive to heterogeneity in data sets and less sensitive to outliers.

A simplistic similarity measure is ***Common Neighbors***, which predicts the likeness between two documents in terms of the number of common attributes each of those two documents independently shares with other documents.

Adamic/Adar Weighted modifies Common Neighbors to weight attributes that are shared infrequently relatively higher than those which are more common across all documents. Mathematically, this is accomplished by weighting a shared attribute's vector value with 1/ log of the number of times the attribute is shared across all documents.

Hybrid Metrics

Experts inevitably merge foundational seminal concepts together. Thus, this section explains some well executed hybrid metrics derived from the ones above.

Method	Description
Jaro-Winkler	Jaro Distance modified to favor common prefixes
Monge-Elkan	Atomic Strings matching with Gotoh
Soft-TFIDF	A forgiving version of Cosine & Monge-Elkan

Jaro-Winkler is a hybrid algorithm with its roots in Jaro Distance, edit distance, but incorporates Cosine Similarity's approach towards strings with high degree of dissimilarity and TF-IDF's concept of applying a weight to certain elements. It improves on the basic Jaro Distance by accommodating for strings with a common prefix, effectively biasing its matching to favor similarity between two otherwise-dissimilar strings who share a common prefix.

Monge-Elkan is sometimes considered synonymously with Smith-Waterman Edit Distance, but the two are differentiated as Monge-Elkan uses the Gotoh Distance. The confusion is understandable, as Gotoh amends Smith-Waterman distance by accommodating affine gaps. Practically, it applies the combined power of Levenshtein and Jaro Similarity Measures to n-Gram subsets of strings (called atomic strings). Mathematically, Monge-Elkan uses Gotoh edit distance to evaluate atomic strings against each other. Before deciding on Monge-Elkan you should understand how sensitive your matching is to the symmetry of your strings, i.e., if one string is longer than the other. It has quadratic time complexity due to its recursive calculations.

Soft-TFIDF adds a forgiveness factor to Cosine Similarity and Monge-Elkan, which are intolerant of spelling errors as they roll along atomic strings in the order of appearance by incorporating TF-IDF's concept of matrix of terms (i.e., letters) to develop an internal frequency per Atomic string. Soft-TFIDF calculates an inner score comparator, thus allowing partial matches.

Fellegi-Sunter Method and the Expectation-Maximization (EM) Algorithm

The Fellegi-Sunter is a common and well established method of probabilistic record linkage. This method is used to develop the scores for determining link status. The Fellegi-Sunter model sums the weights the log likelihood for each component to determine a match score. The log likelihoods are developed by taking the log of the ratio of the m- and u-probabilities. The m- probability is the probability of agreement on a field between two records that are a true match. The u-probability is the probability of agreement on a field between two records that are not a true match. The single component weight is $\log\left(\frac{m}{u}\right)$, if the field agrees and $\log\left(\frac{1-m}{1-u}\right)$, otherwise. The fields with more distinguishing power will have lower u-probabilities and therefore yield a large weight if the fields agree. There are a few different ways to estimate these probabilities. The u

probabilities can be estimated as a ratio of the frequency of the values divided by the number of pairs in the comparison space. The m probabilities can be estimated by taking samples of pairs and calculating a match rate based on human review or can be based on prior knowledge. A common method would be to use the EM algorithm to estimate both the m- and u-probabilities using the observed agreement patterns in the data. The EM algorithm starts with a sometimes arbitrary estimate of the m- and u-probabilities along with an estimate of the true match rate. The first step or expectation step is to use these initial parameters to estimate the probability of observing an agreement pattern among all the components given they are a true match for each record pair. Using these probabilities and the estimated match rate, the probability of a true match given the observed agreement pattern is calculated. Next the complete log-likelihood is separated into three maximization problems to solve for the new estimates of the m- and u- probabilities along with the true match rate. This process is repeated until some convergence criteria is met. See *Using the EM Algorithm for Weight Computation in the Fellegi-Sunter Model of Record Linkage*[72] by William Winkler to read this process is detail.
Naive Bayes Machine Learning: Naive Bayes Machine Learning methods have also been explored for entity resolution[73].

Ensemble Methods

In addition to many of the individual techniques described above, ensemble or composite approaches may help to enhance the quality of matching efforts. Given that many of the matching tasks are on text fields or text within fields, and string distance measures are often used to quantify the degrees of similarity and dissimilarity, leveraging the benefit of several measures may yield better results than relying on any one measure. Previous work (see Tejada et. al. 2001, Cohen and Richman 2002, and Bilenko and Mooney, 2002 in the supplemental bibliography) has empirically shown that compositing individual measures may offer better performance. A simple example of this method is provided with the code examples, and represents one of many possible approaches that could be taken in looking at finding establishments in data with a high degree of variability in how the establishment names and addresses are coded.

Evaluating Results of Matching and Entity Resolution Approaches

Cutoff Scores

When linking data, there could be an unfeasible amount of records that could be flagged for review given the size of the data sets being linked. Given consideration to the amount of resources that would be needed to review the links there are additional methods that reduce the amount of human review. Dusetzina, Tyree, Meyer, et al.[74] suggests a single cutoff developed by Cook[75] that uses a single cutoff which allows an acceptable distance between the starting weight and the desired weight. The acceptable distance is determined by the researcher's business need on the desired specificity and sensitivity. To increase the number of true matches at the cost of introducing more false positives the researcher would use a more liberal cutoff. If the

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[72] Winkler, W. (2002). *Using the EM Algorithm for Weight Computation in the Fellegi-Sunter Model of Record Linkage*

[73] Yun Zhou , Minlue Wang, Valeriia Haberland, John Howroyd, Sebastian Danicic, and J. Mark (2015) *Improving Record Linkage Accuracy with Hierarchical Feature Level Information and Parsed Data*
https://research.gold.ac.uk/17342/1/Yun_AMBN_2015_journal.pdf

[74] Dusetzina, SB., Tyree, S., Meyer, AM., et al. (2014). *Linking Data for Health Services Research: A framework and Instructional Guide*

[75] Cook LJ, Olson LM, Dean JM. (2001) *Probabilistic record linkage: relationships between file sizes, identifiers, and match weights.* Methods Information Med. 2001;40:196-203. PMID: 11501632.
http://www.ncbi.nlm.nih.gov/books/NBK253313/pdf/Bookshelf_NBK253313.pdf

goal is to only keep record pairs with high probabilities of a match the researcher would set a more conservative cutoff at the risk of increasing false negatives.

Other considerations for cutoffs must be made on whether the matches should be one-to-one, one-to-many, or many-to-many. In the case of one-to-one matches the "greedy" strategy can be employed. The greedy strategy accepts the best match therefore it can only be used for one-to-one matching. This involves taking the pair that has the highest score for a given record. This can be employed without a cutoff if the assumption is a match exists for every record in a given file. In addition a combination of using the cutoff with the greedy method can be used when the assumption is a match may or may not exist and if it does there will only be one.

Performance Evaluation

A common problem with the probabilistic method is a way to evaluate the quality of the links. In most cases the sensitivity, specificity, positive predictive value and negative predictive value are analyzed. There are different ways to calculate these such as taking samples of the pairs and manual reviewing the pairs and characterizing them as true/false positive and true/false negative. However, this process is very resource intensive. Another option would be to use a training set to evaluate the method using known matches and non-matches but this scenario is usually not available.

Machine Learning in Evaluation

Another evaluation option would be to use a training set to evaluate the method using known matches and non-matches but this scenario is usually not available, however if a curated data set already exists, this may be an option.   A machine learning exercise can help in evaluating weighting and thresholds to be applied in tuning some of the other matching strategies, where a data set containing verified matches would be used to train the algorithm and then be used to analyze values returned by the match algorithms to aid in determining what combinations of algorithms are effective; what thresholds and tunings should be used for each algorithm; and weightings and approaches, whether hierarchical or otherwise should be used in using multiple algorithms in combination.

APPENDIX C: Best Practices - Bibliography

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APPENDIX D: Workgroup Methodology

Drawing on strong interest among Federal agencies to achieve efficiencies in matching U.S. employer data across Federal data sets for data analysis, evaluations, and statistical activities, based on common needs across agencies, OMB convened the Employer Data Matching Workgroup in 2016 to complete the following tasks:

- Document pain-points related to matching and uniquely identifying establishments and firms within and between data sets and over time. For example, how are agencies classifying employers in their data and what terms are interchangeable across data sets (e.g., establishment level firm, or enterprise)? What challenges exist in the data for creating matches?
- Identify current successful strategies used by agencies to address this challenge in the context of analyzing data, conducting evaluations, producing statistics, and identifying where additional strategies may be needed to further facilitate this work. This process focuses on coming to agreement on one or a few methods that will be effective for multiple agencies.
- Along with OMB staff, work to develop a white paper identifying best practices, and high-level implementation steps, on how Federal agencies can achieve efficiencies in identifying and matching unique firms and establishments (and the relationship between the two) within and across Federal data sets, for the purposes of analyzing data, conducting evaluations, and producing statistics.

The Workgroup has representative and cross-functional mixture of:

- statistical agencies reporting data on employers,
- evaluation offices examining employers, and
- agencies with Federal programs affecting employers whose data are prime for research, evaluation, and data analysis.

See Table D1 for a complete list of participating offices and component agencies. OMB has also provided strong support for this work. The Social Security Administration's Office of Data Exchange also provided subject matter expertise to help inform the Workgroup's development of best practices.

Table D1: Employer Data Matching Workgroup, Participating Offices and Component Agencies

Department/Agency	Component Agency or Office
Department of Agriculture	Economic Research Service
Department of Commerce	Bureau of Economic Analysis
Department of Commerce	Census Bureau
Department of Commerce	Commerce Data Service
Department of Commerce	International Trade Administration
Department of Commerce	Minority Business Development Agency
Department of Commerce	National Oceanic and Atmospheric Administration
Department of Commerce	Office of the Secretary, Office of Performance, Evaluation, and Risk Management
Department of Education	Institute of Education Sciences, National Center for Education Statistics
Department of Health and Human Services	Agency for Healthcare Research and Quality
Department of Health and Human Services	Centers for Medicare and Medicaid Services, Center for Medicare & Medicaid Innovation
Department of Housing and Urban Development	Office of Policy Development and Research
Department of Labor	Bureau of Labor Statistics
Department of Labor	Chief Evaluation Office
Department of Labor	Employee Benefits Security Administration
Department of Labor	Occupational Safety and Health Administration
Department of Labor	Wage and Hour Division
Department of the Treasury	Internal Revenue Service, Statistics of Income Division
Department of the Treasury	Office of Financial Research
Department of the Treasury	Office of Tax Analysis
Department of Transportation	Chief Data Officer
Environmental Protection Agency	National Center for Environmental Economics
Environmental Protection Agency	Office of Environmental Information
Equal Employment Opportunity Commission	Office of Information Technology
Equal Employment Opportunity Commission	Program Research and Surveys Division
General Services Administration	Federal Acquisition Service
Securities and Exchange Commission	Division of Economic and Risk Analysis
Small Business Administration	Office of Performance Management

Figure D1 provides an overview of the Workgroup's approach. The Workgroup first prioritized agency pain points, and potential categories of best practices, to determine where to focus its efforts. Through this work, it became clear that there was consensus to review best practices for matching, and to review of long-term, high-value changes that agencies could implement to improve matching.

Given the unique scoping and makeup of the Workgroup, members recommended conducting a Workgroup-specific Data Inventory to get information on representative data sets (at a more detailed level than information provided through preexisting efforts, such as Data.gov), and a Workgroup-specific Methods Inventory to obtain information on representative methods for record linkage and entity resolution, to inform best practices.

- The Workgroup relied primarily on the Data Inventory to generate sections in the white paper related to long-term best practices. In August and September of 2016, Workgroup members provided information on a representative sample of data sets from their agencies contain information on individual employers, firms, and/or establishments that have the widest coverage, greatest use, or which they were most interested in matching to other data sets.
- The Workgroup relied primarily on its Methods Inventory to generate Best Practices for Matching and Data Collection Improvements. The Methods Inventory collected and disseminated best practices for matching. Specifically, the Workgroup asked for information on successful methods and tools agencies use for achieving efficiencies in matching employer, establishment or firm data.

The Workgroup then supplemented synthesized findings with iterative feedback from member agencies, a literature review, and an interagency clearance process. This approach was deemed analytically sufficient by the Workgroup's co-chairs, OMB, and Workgroup members.

Figure D1: Methodology

Determine Categories of Best Practices	
Pain Points Analysis	Prioritzation of Related Best Practices

Conduct Inventories to Inform Best Practices	
Data Inventory	Methods Inventory

Review of Literature to Round Out Best Practices	
Existing Standards	Methods

Come to Consensus Using Common Needs Across Agencies	
Refinements for Agency-Specific Issues	Finalize Common Taxonomy

The Data Inventory produced information on administrative and statistical data sources from a subset of participating Agencies, as shown in Table D2:

Table D2: Agencies and Offices Represented in Data Inventory

Department/Agency of Data Source	Component Agency or Office of Data Source
Department of Commerce	Bureau of Economic Analysis, Balance of Payments Division
Department of Commerce	Bureau of Economic Analysis, Direct Investment Division
Department of Commerce	Census Bureau
Department of Commerce	Census Bureau (Survey sponsored by the Agency for Healthcare Research and Quality)
Department of Education	Institute of Education Sciences, National Center for Education Statistics
Department of Education	Office for Civil Rights and National Center for Education Statistics
Department of Health and Human Services	Administration for Children and Families, Office of Child Support Enforcement
Department of Labor	Bureau of Labor Statistics, Office of Employment and Unemployment Statistics
Department of Labor	Employee Benefits Security Administration
Department of Labor	Occupational Safety & Health Administration
Department of Labor	Wage and Hour Division
Department of Transportation	Federal Aviation Administration
Department of Transportation	Federal Motor Carrier Safety Administration
Department of Transportation	Federal Railroad Administration
Department of Transportation	National Highway Traffic Safety Administration
Department of Transportation	Pipeline and Hazardous Materials Administration, Office of Hazmat Safety
Department of Treasury	Statistics of Income Division, Internal Revenue Service
Equal Employment Opportunity Commission	Program Research and Surveys Division, Office of Research, Information and Planning
General Services Administration	Integrated Award Environment
Securities and Exchange Commission	(Multiple Offices)
Small Business Administration	Office of Capital Access
Small Business Administration	Office of Disaster Assistance
Small Business Administration	Office of Entrepreneurial Development

72% of the data sources were administrative data sources and not subject to CIPSEA's requirements, but are, or could be, confidential under other statutes or policies; 28% of the data sources were from statistical agencies and subject to CIPSEA's requirements. Among the administrative data sources, the main unit of analysis is at the transactional level, and employers or firms referenced in these sources can be at either the establishment or

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enterprise level. Among the statistical data sources, six (55%) were identified as at, or generally at, the establishment level; three (27%) were at the enterprise level; the remaining sources were at another type of level (e.g. government unit). The Workgroup examined commonalities among fields available in the example sources flagged from these agencies to develop common data elements. For example, approximately one-half of the sources in the inventory noted at least one identifier which could be used across agencies (e.g. EIN). Approximately one-half of the sources had an agency-specific identifier. As about half of the example sources included at least one interagency identifier, the Workgroup proceeded to include it in the Common Data Elements. 87% of the sources included physical and/or mailing addresses, and nearly all the sources included name fields.

As further described in Appendix A, the Workgroup also reviewed the Data Inventory for suggestions on potential authoritative sources, and considerations for reviewing legal barriers, policy and legal interpretations, and capacity and resource constraints.

To gather sufficient information to describe best practices in employer record linkage and entity resolution, the Workgroup conducted a methods inventory: a questionnaire that was sent to a broad spectrum of Federal agencies and offices in July 2016. Responses were obtained from 21 individuals representing 14 different Federal agencies or offices. The results are further detailed in Appendix B.

In order to round out the findings from the Data and Methods Inventories, the Workgroup also made note of relevant sources, and reviewed them in compiling best practices. These sources are listed in Appendix C.

Future work would include further refinement of best practices. Member agencies agreed that the approaches we capture are useful and agencies stand to gain from implementing them. There is however, an open question on how best to achieve the benefits of the best practices. A second phase of the work would focus on launching a methods community for matching employer data to develop refined methods by application, and further vetting of long-term best practices for consideration in future policy documents.

Appendix E: Best Practices Code Examples

Agencies submitted these code examples to support a better understanding of current methods and best practices, and illustrate approaches used in data remediation, canonicalization and data matching. This appendix provides the code samples in full so that individuals seeking to match data on employers can see the specific steps that are taken. Specifically:

- Code Example 1: Census SAS code to canonicalize/standardize string content to facilitate matching
- Code Example 2: Code from Census in SAS to demonstrate matching with Business Register (This code requires the SAS Data Quality Server)
- Code Example 3: Code from CEO/DOL to implement probabilistic matching, EM algorithm (This code does NOT require the SAS Data Quality Server)
- Code Example 4: Stata code from EBSA/DOL to remediate data quality issues and match data, using regular expressions
- Code Example 5: Code from OSHA/DOL to normalize/canonicalize/remediate data quality issues. This uses regular expressions, and makes use of information from some fields that code example 1 deletes.
- Code Example 6: Code from CEO/DOL to composite string distance measures
- Code Example 7: Code compiled by Rebecca Bilbro, in Python, to test string matching functions
- Code Example 8: Module used by the Office of Foreign Labor Certification (OFLC), ETA/DOL to remediate data quality issues

Note that many of the code examples that deal with data quality issues search for very specific patterns which can cause issues in both exact matching and inexact matching applications, as opposed to searching for generally unexpected or anomalous values. The exact code syntax is less important, rather the examples that warrant modification illustrate the kinds of actual agency data issues and problems that impede or limit the effectiveness of matching. The goal of these code sections is typically to standardize strings for comparison so that exact matching can occur, or to increase the accuracy and precision for inexact matching processes by reducing the rates of false positives and false negatives.

Code example 1: Census SAS code to canonicalize/standardize string content to facilitate matching

```
/* Cleaning up the NETS - Standardizing the NETS */

options compress=yes;
libname NETS ''; *where the data is located;
run;
libname output '';
run;  * output files libname;

%let state=CA; *CHOOSE THE STATE

/*///// RAW NETS DATA /////*/

proc sort data=nets.nets_&state.2007; * RAW DC/CA FULL DATA FROM 1990 TO 2007 ;
by Company;
run;

/*///// NETS ONLY HQ /////*/
```

```
* Keeping only a subset (headquarters) of the observations;
data nets_&state.2007hq;
set nets.nets_&state.2007(where=(category='Standalone' or category='Headquarters')) ;
run;

/* Only keeping some NETS variables */
data Nets_&state.2007no (keep=Company Address City State ZipCode);
        set Nets_&state.2007hq(drop= xxx);
run;

proc sql;
        create table Nets_&state.2007nodups as
        select distinct *
        from Nets_&state.2007no;
quit;

/* Keeping only firms in STATE */
data Nets_&state.2007nodups;
        set Nets_&state.2007nodups;
        if state^="&state." then delete;
run;

 /*//////////// Further Cleaning and Pairing //////////////*/
/* IF THE DATA IS NOT CAPITALIZED WE NEED TO CAPITALIZED IT BEFORE */

%DQLOAD(DQLOCALE=(ENUSA), DQSETUPLOC="sas pathname");

%macro standard(n,s,file);
data &file._st;
        set &file;
        &n=tranwrd(&n,".","");
        &n=tranwrd(&n,",","");
        &n=tranwrd(&n,"& ","");
        &n=tranwrd(&n,"&","");
        &n=tranwrd(&n,"'","");
        &n=tranwrd(&n,"#","");
        &n=tranwrd(&n,"-","");
        &n=tranwrd(&n,"/","");
        &n=tranwrd(&n,"  "," ");
    &n=tranwrd(&n,' INC ', '');
    &n=tranwrd(&n,'LLC ', '');
        &s=tranwrd(&s,".","");
```

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```
  &s=tranwrd(&s,",","");
  &s=tranwrd(&s,"& ","");
  &s=tranwrd(&s,"&","");
  &s=tranwrd(&s,"'","");
  &s=tranwrd(&s,"#","");
  &s=tranwrd(&s,"-","");
  &s=tranwrd(&s,"/","");
  &s=tranwrd(&s,"  "," ");
  &s=tranwrd(&s,"P O ", "PO ");
  &n=tranwrd(&n,' THE ',");
&n=tranwrd(&n,'THE ',");
&n=tranwrd(&n,' OF ',");
&n=tranwrd(&n,","," ");
&n=tranwrd(&n,"'","");
&n=tranwrd(&n,"-"," ");
&n=tranwrd(&n,"&"," ");
&n=tranwrd(&n,' CO ',");
&n=tranwrd(&n,' COMPANY ',");
&n=tranwrd(&n,' CORP ',");
&n=tranwrd(&n,' INC ',");
&n=tranwrd(&n,' L P ',");
&n=tranwrd(&n,' LP ',");
&n=tranwrd(&n,'LLC ',");
&n=tranwrd(&n,'L L C ',");
&n=tranwrd(&n,' PL ',");
&n=tranwrd(&n,' P L ',");
&n=tranwrd(&n,'PLLC ',");
&n=tranwrd(&n,'P L L C ',");
&n=tranwrd(&n,'GRP ',");
&n=tranwrd(&n,'LTD ',");
&n=tranwrd(&n,'LLP ',");
&n=tranwrd(&n,' AND ',");
&n=tranwrd(&n,' ASSOC ',");
&n=tranwrd(&n,' ASSOCS ',");
&n=tranwrd(&n,' DBA ',");
&n=tranwrd(&n,' D B A ',");
&n=tranwrd(&n,' MD ',");
&n=tranwrd(&n,' M D ',");
&n=tranwrd(&n,' DMD ',");
&n=tranwrd(&n,' D M D ',");
&n=tranwrd(&n,' PS ',");
&n=tranwrd(&n,' P S ',");
&n=tranwrd(&n,' MSD ',");
```

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```
&n=tranwrd(&n,' M S D ','');
&n=tranwrd(&n,' DVM ','');
&n=tranwrd(&n,' D V M ','');
&n=tranwrd(&n,' ESQ ','');
&n=tranwrd(&n,' DDS ','');
&n=tranwrd(&n,' D D S ','');
&n=tranwrd(&n,' DR ','');
&n=tranwrd(&n,' D R ','');
&n=tranwrd(&n,' OD ','');
&n=tranwrd(&n,' O D ','');
&n=tranwrd(&n,' PC ','');
&n=tranwrd(&n,' P C ','');
&n=tranwrd(&n,' PA ','');
&n=tranwrd(&n,' P A ','');
&n=tranwrd(&n,' S C ','');
&n=tranwrd(&n,' CPA ','');
&n=tranwrd(&n,' CPAS ','');
&n=tranwrd(&n,' C P A ','');
&n=tranwrd(&n,' PARTNERS ','');
&n=tranwrd(&n,' PARTNER ','');
&n=tranwrd(&n,' SYSTS ','');
&n=tranwrd(&n,' SVC ','');
&n=tranwrd(&n,' SVCS ','');
&n=tranwrd(&n,' SLTNS ','');
&n=tranwrd(&n,' HOLDINGS ','');
&n=tranwrd(&n,' HOLDING ','');
&n=tranwrd(&n,' INTRNTL ','');
&n=tranwrd(&n,' U S ',' US ');
&n=tranwrd(&n,' PC ','');
&n=tranwrd(&n,' PTR ','');
&n=tranwrd(&n,' GEN ','');
&n=tranwrd(&n,' MBR ','');
&n=tranwrd(&n,' MGR ','');
&n=tranwrd(&n,' MEMBER ','');
&n=tranwrd(&n,' ET AL ','');
&n=tranwrd(&n,' SOLE ','');
&n=tranwrd(&n,' SINGLE ','');
&n=tranwrd(&n,' SNGL ','');
&n=tranwrd(&n,' OWNER ','');
a=index(&n,"INC ");if a=1 then &n='';drop a;
   if scan(&n,1)='U' and scan(&n,2)='S' then &n=tranwrd(&n,'U S ',' US ');
   if strip(&n)='PL' then &n='';
if strip(&n)='P L' then &n='';
```

```
   if strip(&n)='PA' then &n='';
   if strip(&n)='P A' then &n='';
   if strip(&n)='HOLDINGS' then &n='';
   if strip(&n)='ASSN' then &n='';
   if strip(&n)='ASSOCS' then &n='';
   if strip(&n)='LAW' then &n='';
   if strip(&n)='SVCS' then &n='';
   if strip(&n)='A PROFESSIONAL' then &n='';
   if strip(&n)='FNDTN' then &n='';
   if strip(&n)='L P' then &n='';
   if strip(&n)='LP' then &n='';
   if strip(&n)='CORP' then &n='';
   if strip(&n)='INST' then &n='';
   if strip(&n)='MGMT' then &n='';
   if strip(&n)='LIABILITY' then &n='';
   if strip(&n)='CO' then &n='';
   if strip(&n)='INCOPORATED' then &n='';
   if strip(&n)='INCORPARATED' then &n='';
   if strip(&n)='INCORPERATED' then &n='';
   if strip(&n)='INCORPORACTED' then &n='';
   if strip(&n)='INCORPORADO' then &n='';
   if strip(&n)='INCORPORATION' then &n='';
   if strip(&n)='INCORPORAID' then &n='';
   if strip(&n)='INCORPORATD' then &n='';
   if strip(&n)='INCORPORATE' then &n='';
   if strip(&n)='INCORPORATOR' then &n='';
   if strip(&n)='INCORPORRATED' then &n='';
   if strip(&n)='INCORPORTED' then &n=''; *strip all leading and trail blanks removed;
   &n=strip(compbl(&n)); *reduce the spaces between words to one space;
     &s=tranwrd(&s,".","");
     &s=tranwrd(&s,",","");
     &s=tranwrd(&s,"& ","");
     &s=tranwrd(&s,"&","");
     &s=tranwrd(&s,"'","");
     &s=tranwrd(&s,"#","");
     &s=tranwrd(&s,"-","");
     &s=tranwrd(&s,"/","");
     &s=tranwrd(&s,"  "," ");
     &s=tranwrd(&s,"P O ","PO ");
     &s=tranwrd(&s," ZERO "," 0 ");
   &s=tranwrd(&s," ONE "," 1 ");
   &s=tranwrd(&s," TWO "," 2 ");
   &s=tranwrd(&s," THREE "," 3 ");
```

```
&s=tranwrd(&s," FOUR "," 4 ");
&s=tranwrd(&s," FIVE "," 5 ");
&s=tranwrd(&s," SIX "," 6 ");
&s=tranwrd(&s," SEVEN "," 7 ");
&s=tranwrd(&s," EIGHT "," 8 ");
&s=tranwrd(&s," NINE "," 9 ");
&s=tranwrd(&s," TEN "," 10 ");
&s=tranwrd(&s," ELEVEN "," 11 ");
&s=tranwrd(&s," TWELVE "," 12 ");
&s=tranwrd(&s," THIRTEEN "," 13 ");
&s=tranwrd(&s," FOURTEEN "," 14 ");
&s=tranwrd(&s," FIFTEEN "," 15 ");
&s=tranwrd(&s," SIXTEEN "," 16 ");
&s=tranwrd(&s," SEVENTEEN "," 17 ");
&s=tranwrd(&s," EIGHTEEN "," 18 ");
&s=tranwrd(&s," NINETEEN "," 19 ");
&s=tranwrd(&s,"ZERO "," 0 ");
&s=tranwrd(&s,"ONE "," 1 ");
&s=tranwrd(&s,"TWO "," 2 ");
&s=tranwrd(&s,"THREE "," 3 ");
&s=tranwrd(&s,"FOUR "," 4 ");
&s=tranwrd(&s,"FIVE "," 5 ");
&s=tranwrd(&s,"SIX "," 6 ");
&s=tranwrd(&s,"SEVEN "," 7 ");
&s=tranwrd(&s,"EIGHT "," 8 ");
&s=tranwrd(&s,"NINE "," 9 ");
&s=tranwrd(&s,"TEN "," 10 ");
&s=tranwrd(&s,"ELEVEN "," 11 ");
&s=tranwrd(&s,"TWELVE "," 12 ");
&s=tranwrd(&s,"THIRTEEN "," 13 ");
&s=tranwrd(&s,"FOURTEEN "," 14 ");
&s=tranwrd(&s,"FIFTEEN "," 15 ");
&s=tranwrd(&s,"SIXTEEN "," 16 ");
&s=tranwrd(&s,"SEVENTEEN "," 17 ");
&s=tranwrd(&s,"EIGHTEEN "," 18 ");
&s=tranwrd(&s,"NINETEEN "," 19 ");
&s=tranwrd(&s," FIRST "," 1ST ");
&s=tranwrd(&s," SECOND "," 2ND ");
&s=tranwrd(&s," THIRD "," 3RD ");
&s=tranwrd(&s," FOURTH "," 4TH ");
&s=tranwrd(&s," FIFTH "," 5TH ");
&s=tranwrd(&s," SIXTH "," 6TH ");
&s=tranwrd(&s," SEVENTH "," 7TH ");
```

```
&s=tranwrd(&s," EIGHTH "," 8TH ");
&s=tranwrd(&s," NINTH "," 9TH ");
&s=tranwrd(&s," TENTH "," 10TH ");
&s=tranwrd(&s," ELEVENTH "," 11TH ");
&s=tranwrd(&s," TWELFTH "," 12TH ");
&s=tranwrd(&s," THIRTEENTH "," 13TH ");
&s=tranwrd(&s," FOURTEENTH "," 14TH ");
&s=tranwrd(&s," FIFTEENTH "," 15TH ");
&s=tranwrd(&s," SIXTEENTH "," 16TH ");
&s=tranwrd(&s," SEVENTEENTH "," 17TH ");
&s=tranwrd(&s," EIGHTEENTH "," 18TH ");
&s=tranwrd(&s," NINETEENTH "," 19TH ");
&s=tranwrd(&s," TWENTY "," 20 ");
&s=tranwrd(&s," THIRTY "," 30 ");
&s=tranwrd(&s," FORTY "," 40 ");
&s=tranwrd(&s," FIFTY "," 50 ");
&s=tranwrd(&s," SIXTY "," 60 ");
&s=tranwrd(&s," SEVENTY "," 70 ");
&s=tranwrd(&s," EIGHTY "," 80 ");
&s=tranwrd(&s," NINETY "," 90 ");
&s=tranwrd(&s,"TWENTY "," 20 ");
&s=tranwrd(&s,"THIRTY "," 30 ");
&s=tranwrd(&s,"FORTY "," 40 ");
&s=tranwrd(&s,"FIFTY "," 50 ");
&s=tranwrd(&s,"SIXTY "," 60 ");
&s=tranwrd(&s,"SEVENTY "," 70 ");
&s=tranwrd(&s,"EIGHTY "," 80 ");
&s=tranwrd(&s,"NINETY "," 90 ");
&s=tranwrd(&s," TWENTIETH "," 20TH ");
&s=tranwrd(&s," THIRTIETH "," 30TH ");
&s=tranwrd(&s," FORTIETH "," 40TH ");
&s=tranwrd(&s," FIFTIETH "," 50TH ");
&s=tranwrd(&s," SIXTIETH "," 60TH ");
&s=tranwrd(&s," SEVENTIETH "," 70TH ");
&s=tranwrd(&s," EIGHTIETH "," 80TH ");
&s=tranwrd(&s," NINETIETH "," 90TH ");
&s=tranwrd(&s," EXT ","");
&s=tranwrd(&s," STREET ","");
&s=tranwrd(&s," ST ","");
&s=tranwrd(&s," STE ","");
&s=tranwrd(&s," RD ","");
&s=tranwrd(&s," ST ","");
&s=tranwrd(&s,"BLVD","");
```

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```
&s=tranwrd(&s," LN ","");
&s=tranwrd(&s," PL ","");
&s=tranwrd(&s,"PKWY","");
&s=tranwrd(&s,"PRKWY","");
&s=tranwrd(&s,"PWY","");
&s=tranwrd(&s,"FREEWAY","");
&s=tranwrd(&s,"FRWY","");
&s=tranwrd(&s,"FWY","");
&s=tranwrd(&s,"HIGHWAY","");
&s=tranwrd(&s,"HWY","");
&s=tranwrd(&s," STATE ","");
&s=tranwrd(&s," ROAD ","");
&s=tranwrd(&s," RR ","");
&s=tranwrd(&s," COUNTY ","");
&s=tranwrd(&s," CNTY ","");
&s=tranwrd(&s," US ","");
&s=tranwrd(&s," EXPRESSWAY ","");
&s=tranwrd(&s," EXPWY ","");
&s=tranwrd(&s," EXPY ","");
&s=tranwrd(&s," DR ","");
&s=tranwrd(&s," PIKE ","");
&s=tranwrd(&s," TERRACE ","");
&s=tranwrd(&s," TERR ","");
&s=tranwrd(&s," TER ","");
&s=tranwrd(&s," CT ","");
&s=tranwrd(&s," CIR "," ");
&s=tranwrd(&s," CTR ","");
&s=tranwrd(&s," WAY ","");
&s=tranwrd(&s," AVE ","");
&s=tranwrd(&s," PLZ ","");
&s=tranwrd(&s," PLAZA ","");
&s=tranwrd(&s," CROSSING ","");
&s=tranwrd(&s," XING ","");
&s=tranwrd(&s," FLOOR ","");
&s=tranwrd(&s," FLOO ","");
&s=tranwrd(&s," FLR ","");
&s=tranwrd(&s," FL ","");
&s=tranwrd(&s," LOT ","");
&s=tranwrd(&s," APT ","");
&s=tranwrd(&s," SUITE ","");
&s=tranwrd(&s," ROOM ","");
&s=tranwrd(&s," RM ","");
&s=tranwrd(&s," UNIT ","");
```

```
        &s=tranwrd(&s," UNITS ","");
        &s=tranwrd(&s," NUM ","");
        &s=tranwrd(&s,"#","");
        &s=tranwrd(&s," NO ","");
        &s=tranwrd(&s," BLDG ","");
        &s=tranwrd(&s," BLD ","");
        &s=compbl(&s);
        &s=strip(&s); *all leading and trailing blanks remove;
run;
%mend standard;


/*/ Do the loop /*/

%standard(Company, Address,Nets_&state.2007nodups)
```

Code Example 2: Code from Census in SAS to demonstrate matching with Business Register (This code requires the SAS Data Quality Server)

```
/* PROGRAM THAT MERGES the BUSINESS REGISTER (BR) for a particular year WITH NETS DATA */


/* The Business Register data set is establishment-based and includes business location, organization type (e.g.,
subsidiary or parent), industry classification, and operating data (e.g., receipts and employment).*/

/* The nets data has financial information (credit score, financial stress score) at the firm level. The only issue is
that the majority of the observations in the nets data don't have an identifier that directly links the nets data with
the business register database. In order to merge these two data sets we will do name and address matching */

/* THIS PROGRAM USES THE CLEAN BR (ONLY FOR CA AND DC) FROM THE
PROGRAM BR_CLEANUP AND CLEAN NETS DATA FROM THE PROGRAM NETS_CLEANUP */

options compress=yes;
libname NETS ''; *path for the input files ;
run;
libname NETS2 ''; * path for the output files - the merge data;
run;
LIBNAME br ''; *the BR clean files;
run;

/*///////////////////////////////////////////////////////////
/// Matching NETS to the BR by EIN (EMPLOYER IDENTIFICATION NUMBER)
/////////////////////////////////////////////////////////////*/
```

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```
*defining macros;
%let yr=2005; *BR year to merge ;
%let year=05; *BR year to merge TWO DIGITS;
%let base=2005; *NETS year to merge;
%let st=CA; *state to merge;
%let statenum=06;

data netsfile;
        set nets.nets_&st._&base.; *nets file used in the merge;
        run;

data brfile;
 set br.br&yr.(where=(sstate="&st")); *br file used in the merge;
run;

data &mergefile &miss1(keep=nname nstreet ncity nzip nstate ) &miss2(keep=sname sstreet scity szip sstate);
        format nname nstreet ncity nzip sname sstreet scity szip;
        merge &out1(in=a) &out2(in=b);
        by ein;
        if a and b then output &mergefile;
        if a and not b then output &miss1;
        if b and not a then output &miss2;
run;


/* /////////////////////////////////////////////////////////
// NAME AND ADRESS MATCHING PART I
///////////////////////////////////////////////////////// */

/*
Step 1: We first match the NETS in year 1 with the BR in year 1, then we save the obs that we have not match
from this first step and called this file unmatched1.
Step 2: We merge unmatched1 with the BR in year 0, then we save the obs we have not match from this second
step and called this file unmatched2.
Step 3: We merge unmatched2 with the BR in year 2.

We proceed with these 3 steps to maximize the number of matches.
*/

%macro merge_current_post_pre(pre,current,post,statefips,statetwodigits);

%do iter=1 %to 3;
```

```
*re-defining macros;
%let base=&current.; *NETS year to merge;
%let st=&statetwodigits.; *state to merge;
%let statenum=&statefips.;


/* This files have been obtained from Nets_cleanup.sas and BR_cleanup.sas; */


* First iteration,merging BR year 1 with NETS year 1
%if &iter.=1 %then %do;
        %let yr=&base.; *BR year to merge ;
        %let year=%substr(&base.,3,2); *BR year to merge TWO DIGITS;
        data netsfile;
        set nets.nets_&st._&base.; *nets file use in the merge;
        run;
%end;


*Second iteration, merging (unmatched)NETS year 1 with BR year 0
%else %if &iter.=2 %then %do;
        %let yr=&pre.; *BR year to merge ;
        %let year=%substr(&pre.,3,2); *BR year to merge TWO DIGITS;
        data netsfile;
        set nets2.miss_nets10_nets&base._br&base._&st; * missing nets obs used in the previos merge;
        run;
%end;


* Third iteration, merging (unmatched)NETS year 1 with BR year 2
%else %if &iter.=3 %then %do;
        %let yr=&post.; *BR year to merge ;
        %let year=%substr(&post.,3,2); *BR year to merge TWO DIGITS;
        data netsfile;
        set nets2.miss_nets10_nets&base._br&pre._&st; * missing nets obs used in the previous merge;
        run;
%end;


data brfile;
 set br.br&yr.(where=(sstate="&st")); *br file use in the merge;
run;




/* ////////////////////////////////////////////////////////
// NAME AND ADRESS MATCHING PART II - DQmatching
//////////////////////////////////////////////////////// */
```

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```
*Match everything using Proc DQ;
%DQLOAD (DQLOCALE=(ENUSA), DQSETUPLOC='sas pathname');

%macro match_name_address(match_number,s1,s2,input1,out1,matchcode,input2,out2,mergefile,miss1,miss2);
*two most important files here are input1 and input2 (the two tables that you want to merge);
*the rest are the outputs;
***********************First match - Name and Address  ************************;
proc dqmatch data=&input1 out=&out1 matchcode=&matchcode;
criteria
       var=nname matchdef='organization' sensitivity=&s1;
criteria
       var=nstreet matchdef='address' sensitivity=&s2;
run;

proc dqmatch data=&input2 out=&out2 matchcode=&matchcode;
criteria
       var=sname matchdef='organization' sensitivity=&s1;
criteria
       var=sstreet matchdef='address' sensitivity=&s2;
run;

proc sort data=&out1;
by &matchcode;
run;
proc sort data=&out2;
by &matchcode;
run;

data &mergefile &miss1(keep=nname nstreet ncity nzip nstate) &miss2(keep=sname sstreet scity szip sstate);
       format nname nstreet ncity nzip sname sstreet scity szip;
       merge &out1(in=a) &out2(in=b);
       by &matchcode;
       match=&match_number;
       if a and b then output &mergefile;
       if a and not b then output &miss1;
       if b and not a then output &miss2;
run;
%mend match_name_address;


options nomprint; *mprint;
*Pass1 ;
```

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```
%match_name_address(1,80,80,netsfile,nets2.nets_match1,match_cd1,brfile,nets2.br_match1,nets2.mergepass1
,miss_nets,miss_br)
*Pass2 - The inputs for the second pass will be the missing matches from the first pass;
%match_name_address(2,80,55,miss_nets,nets2.nets_match2,match_cd2,miss_br,nets2.br_match2,nets2.merge
pass2,miss_nets2,miss_br2)
*Pass3 ;
%match_name_address(3,78,78,miss_nets2,nets2.nets_match3,match_cd3,miss_br2,nets2.br_match3,nets2.mer
gepass3,miss_nets3,miss_br3)

/* we could also chose to do more passes with different sensitivity, but in our case they were not good
matches*/

* Deleting data sets;
proc datasets library=nets2;
 delete Br_match: Nets_match: ;
quit;

***********************Second match - Name and Zip*************************;
%macro match_name_zip(match_number,s1,s2,input1,out1,matchcode,input2,out2,mergefile,miss1,miss2);
* Using what we did not match from nets or br we proceed;
proc dqmatch data=&input1 out=&out1 matchcode=&matchcode;
criteria
        var=nname matchdef='organization' sensitivity=&s1;
criteria
        var=nzip matchdef='text' sensitivity=&s2;
run;

proc dqmatch data=&input2 out=&out2 matchcode=&matchcode;
criteria
        var=sname matchdef='organization' sensitivity=&s1;
criteria
        var=szip matchdef='text' sensitivity=&s2;
run;
proc sort data=&out1;
by &matchcode;
run;
proc sort data=&out2;
by &matchcode;
run;

data &mergefile &miss1(keep=nname nstreet ncity nzip nstate) &miss2(keep=sname sstreet scity szip sstate);
        format nname nstreet ncity nzip sname sstreet scity szip; *ordering the variables in the data set;
        merge &out1(in=a) &out2(in=b);
```

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```
        by &matchcode;
        match=&match_number;
        if a and b then output &mergefile;
        if a and not b then output &miss1;
        if b and not a then output &miss2;
run;
%mend match_name_zip;

*Pass4  ;
%match_name_zip(4,93,95,miss_nets3,nets2.nets_match4,match_cd4,miss_br3,nets2.br_match4,nets2.mergepa
ss4,nets2.miss_nets10,nets2.miss_br10)


data nets2.miss_nets10_nets&base._br&yr._&st;
set nets2.miss_nets10;
run;

 data nets2.miss_br10_nets&base._br&yr._&st;
set nets2.miss_br10;
run;

proc datasets library=nets2;
 delete Br_match: Nets_match: miss_nets10 miss_br10 miss_nets8 miss_br8;
quit;




****************Organize all of the Match files into One
File**********************************;
proc datasets library=work;
 delete nets_br_match0;
quit;

proc append base=nets_br_match0 data=nets2.mergepass1 force;
run;
proc append base=nets_br_match0 data=nets2.mergepass2 force;
run;
proc append base=nets_br_match0 data=nets2.mergepass3 force;
run;
proc append base=nets_br_match0 data=nets2.mergepass4 force;
run;

/*
```

```
proc append base=nets_br_match0 data=nets2.mergepass5 force;
run;
proc append base=nets_br_match0 data=nets2.mergepass6 force;
run;
proc append base=nets_br_match0 data=nets2.mergepass7 force;
run;
proc append base=nets_br_match0 data=nets2.mergepass8 force;
run;
proc append base=nets_br_match0 data=nets2.mergepass9 force;
run;
proc append base=nets_br_match0 data=nets2.mergepass10 force;
run;
*/


proc datasets library=nets2;
 delete mergepass:;
quit;
```

```
/* This is the end of the matching, then we can merge our merge data sets to other data sets as the lbd */
```

```
%merge_current_post_pre(2002,2003,2004,06,CA);
```

Code Example 3: Code from CEO/DOL to implement probabilistic matching, EM algorithm (This code does NOT require the SAS Data Quality Server)
```
/* Select states and their corresponding ETA Regions*/
proc sql;
select state, reg into :st1-:st&sysmaxlong, :rg1-:rg&sysmaxlong
from ((select distinct(state), '6' as reg from pudf.WP_PY2013Q4_PUBSEEKERS_REG6)
union
(select distinct(state), '5' as reg from pudf.WP_PY2013Q4_PUBSEEKERS_REG5)
union
(select distinct(state), '4' as reg from pudf.WP_PY2013Q4_PUBSEEKERS_REG4)
union
(select distinct(state), '3' as reg from pudf.WP_PY2013Q4_PUBSEEKERS_REG3)
union
(select distinct(state), '2' as reg from pudf.WP_PY2013Q4_PUBSEEKERS_REG2)
union
```

```
(select distinct(state), '1' as reg from pudf.WP_PY2013Q4_PUBSEEKERS_REG1));
quit;

%let n=&sqlobs;

/* Selecting variables to be excluded for data linkage*/
proc sql;
select name into :var1-:var&sysmaxlong
from dictionary.columns
where memname="WP_PY2013Q4_PUBSEEKERS_REG1"
and upcase(name) not in ('ID','FILETYPE','STATE','PROGRAMYEAR','OBS','QUARTER',
        'BIRTH_DT', 'REG_DT','WIBNAME','GENDER','WIB','WHITE','INDIAN','ASIAN','BLACK',
        'MULTI','HAWAIIAN','HISPANIC','VET','VETELIG','VET911','VETCAMP','VETDIS',
        'VETTAP','VETRECENT','VETHOMELESS','VETTRANS','T','FIRST_SERVICE')
and libname='PUDF';
quit;

%let varnum=&sqlobs;

%macro EM;

/*Intializing p, u- and m-probabilities for the first iteration of the EM algorithm*/

/*Start state loop*/
%do s=1 %to &n;
        data kfs.em0&&ST&s;
        iter=0;
        p=.005;

  %do i=1 %to &varnum;
        m&&var&i=.9 ; u&&var&i=.1;
  %end;

        run;

        /*Start iteration loop*/
        %let j=0; %let stop=1;
        %do %until (&j=50 or &stop=0);
          %let j=%eval(&j+1);

        /*EM Algorithm*/
        data kfs.em&&ST&s;
```

```
sysecho "Vector creation Iteration &j &&st&s &s of &n";

set pudf.WP_PY2013Q4_PUBSEEKERS_REG&&RG&s (obs=1);

declare hash ob(data set:%unquote(%bquote(')pudf.WP_PY2013Q4_PUBSEEKERS_REG&&RG&s
(where=(state="&&ST&s"))%bquote(')) , multidata:"Y", hashExp:16);
ob.definekey('reg_dt','gender');
ob.definedata(all:'Y');
ob.definedone();

set kfs.em0&&ST&s (where=(iter=%eval(&j-1)));
        n=0; n1=0; gm=0;

DO UNTIL (eof);
        set PUDF.WP_PY2013Q3_SEEKERS_REG&&RG&s (where=(state="&&ST&s")
rename=(id=aid %do i=1 %to &varnum; &&var&i=a&&var&i %end;)) end=eof;

        n1+1;

        call missing(id %do i=1 %to &varnum; ,&&var&i %end;);
        rc=ob.find(key:reg_dt, key:gender);

        if rc=0 then do;
                m=1;u=1;

                %do i=1 %to &varnum;
                if m&&var&i>0 and u&&var&i>0 and m&&var&i>u&&var&i then do;
                        if missing(&&var&i)=1 or missing(a&&var&i)=1 or &&var&i^=a&&var&i
                        then do;
                                m=m*(1-m&&var&i); u=u*(1-u&&var&i);
                        end;
                        else if &&var&i=a&&var&i then do;
                                m=m*m&&var&i;
                                u=u*u&&var&i;
                        end;
                end;
                %end;

                g=round(p*m/(p*m+(1-p)*u),.00001);
                n+1;
                gm + g;

                %do i=1 %to &varnum;
```

```
if &&var&i=a&&var&i and missing(&&var&i)=0 and missing(a&&var&i)=0
then do;
        g&&var&i+1;

        if m&&var&i>0 and u&&var&i>0 and m&&var&i>u&&var&i then do;
                gm&&var&i + g;
                gu&&var&i + (1-g);
        end;

end;
%end;


rc=ob.has_next(RESULT: idother);
do while (idother ne 0);
        rc=ob.find_next(key:reg_dt, key:gender);
        rc=ob.has_next(result: idother);

        m=1;u=1;

        %do i=1 %to &varnum;
        if m&&var&i>0 and u&&var&i>0 and m&&var&i>u&&var&i then do;

                if missing(&&var&i)=1 or missing(a&&var&i)=1 or
                &&var&i^=a&&var&i then do;
                        m=m*(1-m&&var&i); u=u*(1-u&&var&i);
                end;
                else if &&var&i=a&&var&i then do;
                        m=m*m&&var&i;
                        u=u*u&&var&i;
                end;

        end;
        %end;

        g=round(p*m/(p*m+(1-p)*u),.00001);
        n+1;
        gm + g;

        %do i=1 %to &varnum;
        if &&var&i=a&&var&i and missing(&&var&i)=0 and missing(a&&var&i)=0
        then do;
                g&&var&i+1;
```

```
                              if m&&var&i>0 and u&&var&i>0 and m&&var&i>u&&var&i then do;
                                      gm&&var&i + g;
                                      gu&&var&i + (1-g);
                              end;

                      end;
                      %end;
              end;
      end;

      /*Calculating new p,u- and m-probability estimates based on EM algorithm*/
      if eof=1 then do;

              state="&&st&s";
              iter=&j;
              n2=ob.num_items;
              p=min(gm,n1,n2)/n;

              %do i=1 %to &varnum;
              if m&&var&i>0 and u&&var&i>0 and m&&var&i>u&&var&i then do;

                      if round(gm&&var&i/gm,.00001)=0 then m&&var&i=.00001;
                      else if round(gm&&var&i/gm,.00001)=1 then m&&var&i=1-.00001;
                      else m&&var&i = round(gm&&var&i/gm,.00001);

                      if round(gu&&var&i/(n-gm),.00001)=1 then u&&var&i=1-.00001;
                      else if round(gu&&var&i/(n-gm),.00001)=0 then u&&var&i=.00001;
                      else u&&var&i = round(gu&&var&i/(n-gm),.00001);

              end;

              u&&var&i = min(u&&var&i,round(g&&var&i/n,.00001));

              %end;

              keep state iter p n n1 n2 gm %do i=1 %to &varnum; m&&var&i u&&var&i %end;;
              output kfs.em&&ST&s;
      end;
  end;
  stop;
  run;

  %if &syserr ne 0 %then %do;
```

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```
                %put ERROR: EM for &&st&s was not created;
       %let stop=0;
                %goto exit;
        %end;


        /*Checking for convergence of p, u- and m-probabilities
        between current and prior iterations*/


        proc sql noprint;
                select case when round(abs(a.m&var1-b.m&var1),.00001)
                %do i=2 %to &varnum; +round(abs(a.m&&var&i-b.m&&var&i),.00001) %end; =0
                or b.gm>min(b.n1,b.n2) then 0 else 1 end into :stop
                from kfs.em0&&ST&s a, kfs.em&&ST&s b
                where a.iter=%eval(&j-1);
        quit;


        %put For iteration &j stop was &stop;
        data kfs.em0&&ST&s;
        set kfs.em0&&ST&s kfs.em&&ST&s ;
        run;


        %exit:
        %end;
%end;
%mend;
%EM;
```

Code Example 4: Stata code from EBSA/DOL to remediate data quality issues and match data, using regular expressions

```
drop if accountant_firm_name=="" | accountant_firm_name=="0" | accountant_firm_name=="A"
drop if accountant_firm_ein=="" | accountant_firm_ein=="123456789" | accountant_firm_ein=="111111111" |
accountant_firm_ein=="000000000" |  accountant_firm_ein=="999999999"
*Drop plans with no-names
drop if regexm(accountant_firm_name,"PLEASE") & regexm(accountant_firm_name,"ATTACHMENT")
drop if regexm(accountant_firm_name,"SEE ATTACHMENT") | regexm(accountant_firm_name,"SEE
ATTACHED")
drop if regexm(accountant_firm_name,"TBD")
drop if regexm(accountant_firm_name,"TO BE DETERMINED")
drop if regexm(accountant_firm_name,"IN PROCESS")
drop if regexm(accountant_firm_name,"ACCOUNTANTS NAME")
drop if regexm(accountant_firm_name,"ABCDEFGHI")
drop if regexm(accountant_firm_name,"PDFDOC")
```

```
/*Cut down by EIN first, then assign the most common name in the data to that EIN*/
/*initial ID is the audit firm name*/
bysort accountant_firm_ein accountant_firm_name: gen num_names=_N
gsort accountant_firm_ein -num_names ack_id
bro accountant_firm_name accountant_firm_ein num_names
bysort accountant_firm_ein: gen num_ein=_N
bysort accountant_firm_ein: keep if _n==1
count

/*generate a shorter variable name*/
gen preproc=accountant_firm_name /*Preprocessed name*/
gen proccessed_name=accountant_firm_name
/*Standardize the Accountant Name*/
quietly replace proccessed_name = trim(proccessed_name)
quietly replace proccessed_name = upper(proccessed_name)
/*Remove funky characters*/
quietly replace proccessed_name=subinstr(proccessed_name,"(","",.)
quietly replace proccessed_name=subinstr(proccessed_name,")","",.)
quietly replace proccessed_name=subinstr(proccessed_name,"%","",.)
quietly replace proccessed_name=subinstr(proccessed_name,"#","",.)
quietly replace proccessed_name=subinstr(proccessed_name,"'","",.)
quietly replace proccessed_name=subinstr(proccessed_name,"`","",.)
quietly replace proccessed_name=subinstr(proccessed_name,",","  ",.)
quietly replace proccessed_name=subinstr(proccessed_name,"{","",.)
quietly replace proccessed_name=subinstr(proccessed_name,"}","",.)
quietly replace proccessed_name=subinstr(proccessed_name,"[","",.)
quietly replace proccessed_name=subinstr(proccessed_name,"]","",.)
quietly replace proccessed_name=subinstr(proccessed_name,"\"," ",.)
quietly replace proccessed_name=subinstr(proccessed_name,"/"," ",.)
quietly replace proccessed_name=subinstr(proccessed_name,"&"," AND ",.)
quietly replace proccessed_name=subinstr(proccessed_name,"*","",.)
quietly replace proccessed_name=subinstr(proccessed_name,"!","",.)
quietly replace proccessed_name=subinstr(proccessed_name,"?","",.)
quietly replace proccessed_name=subinstr(proccessed_name,".","",.)
quietly replace proccessed_name=subinstr(proccessed_name,"-","",.)
quietly replace proccessed_name=subinstr(proccessed_name,"_","",.)

/*Doing this to remove any double spaces we will encounter from the / \ & replacements*/
quietly replace proccessed_name = itrim(proccessed_name)

/*Eliminate the most common words*/
quietly replace proccessed_name=subinstr(proccessed_name," AND ","",.)
quietly replace proccessed_name=subinstr(proccessed_name,"ASSOCIATES","",.)
```

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```
quietly replace proccessed_name=subinstr(proccessed_name," LLC","",.)
quietly replace proccessed_name=subinstr(proccessed_name," CPAS","",.)
quietly replace proccessed_name=subinstr(proccessed_name," PLLC","",.)
quietly replace proccessed_name=subinstr(proccessed_name," INC","",.)
quietly replace proccessed_name=subinstr(proccessed_name," LTD","",.)
quietly replace proccessed_name=subinstr(proccessed_name," LLP","",.)
quietly replace proccessed_name=subinstr(proccessed_name," CPA","",.)
quietly replace proccessed_name=subinstr(proccessed_name," PC","",.)
quietly replace proccessed_name=subinstr(proccessed_name,"COMPANY","",.)
quietly replace proccessed_name=subinstr(proccessed_name,"ASSOC","",.)
quietly replace proccessed_name=subinstr(proccessed_name,"FIRM","",.)

/*Get rid of the spacings*/
gen test=subinstr(proccessed_name," ","",.)
/*to eliminate the common letter combos as the end of strings, only take them off if they are the last two letters
of the string*/
gen str_length=length(test)
gen lasttwo=substr(test,str_length-1,2)
replace test=substr(test,1,str_length-2) if inlist(lasttwo, "PA", "CO", "PC")

/*Only test on the first 20 characters of the auditor names*/
gen substring=substr(test,1,20)

/*This is the grouping substring function. I have set the matching threshold to be two edits for the longest string
(2/20=.1)*/
/*Also prevents anything from shorter than 9 (1/9=.1111) to be matched if there are any differences*/
strgroup substring, gen(strgroupid) threshold(.175) first force
sort strgroupid
bro accountant_firm_ein accountant_firm_name strgroup
bysort strgroupid: gen flag_auditor_id=_n
count if flag_auditor_id==1
rename strgroupid summit_auditor_id
keep summit_auditor_id proccessed_name substring accountant_firm_ein
sort accountant_firm_ein
```

Code Example 5: Code from OSHA/DOL to normalize/canonicalize/remediate data quality issues. This uses regular expressions, and makes use of information from some fields that code example 1 deletes.

```
/*Name Standardization*/
data kfs.osha_reg5_HI;
set KFS.OSHA_REG5_HI;
If _n_=1 then do;
namekey= prxparse('s/\b(STORES?)? #?\d+$|\-|\\|\/|\.|\,|\bINC\b|\bINCORP[A-Z]+?\b|^THE\b|
\bCORP([A-Z]+)?\b|\bLLC\b|\bCOMPANY\b|\bCO\b|\bD.?B.?A.?\b|\bLTD\b|\(.+\)/ /I');
```

```
end;
retain namekey;
name=strip(compbl(compress(upcase(estab_name),"'")));
name = prxchange(namekey,-1,strip(name));
name = compbl(prxchange('s/ ?& ?|\sAND\s/ & /I',-1,name));
name = prxchange('s/\bUNITED STATES\b|\bU S\b/US/I',-1,name);
name = prxchange('s/\b(UNITED STATES|US) POSTAL SERVICE.*\b/USPS/I',-1,name);
name = prxchange('s/\bUNITED PARCEL SERVICE\b|\bU S\b/UPS/I',-1,name);
name = prxchange('s/\bSERVICES?\b|\bSRVCS\b/SRVC/I',-1,name);
name = prxchange('s/\bCENTERS?\b/CTR/I',-1,name);
name = prxchange('s/\bDEPARTMENT\b/DEPT/I',-1,name);
name = prxchange('s/\bHTLH/HEALTH/I',-1,name);
name = prxchange('s/\bHEALTH CARE/HEALTHCARE/I',-1,name);
name = prxchange('s/\b(SUPER)? ?MARKETS?\b/MARKET/I',-1,name);
name = prxchange('s/^USDOL OSHA.*/USDOL OSHA/I',-1,strip(name));
name = prxchange('s/^WAL.?MART.*/WALMART/I',-1,strip(name));
name = prxchange('s/^TYSON (\w+)? ?(FARMS?|FRESH|FOODS?).*/TYSON FOOD/I',-1,strip(name));
name = prxchange('s/^LOWES\b(OF|HOME|MILLWORK).*/LOWES HOME IMPROVEMENT/I',-
1,strip(name));
name = prxchange('s/^HOME ?DEPOT.*/HOME DEPOT/I',-1,strip(name));
name = prxchange('s/^FED( |-)EX.*/FEDEX/I',-1,strip(name));
name = prxchange('s/\bMANUF[A-Z]+/MFG/I',-1,strip(name));
name = prxchange('s/\bPACK[A-Z]+/PKG/I',-1,strip(name));
name = prxchange('s/.*\bA ?T & T\b.*/AT&T/I',-1,strip(name));
name = compbl(strip(name));
run;




/*Street Standardization*/
/*The majority of the following comes from a paper from a SAS Users Group meeting*/
data kfs.OSHA_REG5_HI;
set KFS.OSHA_REG5_HI;
If _n_=1 then do;
streetkey= prxparse('s/\sST\b|\sSTREET |\sAVE\b|\sAV\b|\sAVENUE\b|\sDR\b|\sDRIVE\b|
\sLN\b|\sLANE\b|\sRD\b|\sROAD\b|\sPKWY\b|\sPARKWAY\b|\sBLVD\b|\sBOULEVARD\b|\sPL\b|
\sPLACE\b|\sPLAZA\b|\sCT\b|\sCRT\b|\sCOURT\b|\sCIR\b|\sCIRCLE\b|\.|\-|\,|\(.+\)/ /I'); end;
retain streetkey;
street=strip(compbl(compress(upcase(site_address),"'")));
street = TRANWRD(street,'NORTH ','N ');
street = TRANWRD(street,'EAST ','E ');
street = TRANWRD(street,'WEST ','W ');
street = TRANWRD(street,'SOUTH ','S ');
```

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```
street = prxchange('s/\bNORTHWEST\b|\bN W\b/NW/I',-1,street);
street = prxchange('s/\bNORTHEAST\b|\bN E\b/NE/I',-1,street);
street = prxchange('s/\bSOUTHWEST\b|\bS W\b/SW/I',-1,street);
street = prxchange('s/\bSOUTHEAST\b|\bS E\b/SE/I',-1,street);


street = prxchange(streetkey,-1,strip(street));
street = compbl(prxchange('s/ ?& ?|\sAND\s/ & /I',-1,street));
street = PRXCHANGE('s/#|STE|SUITE|BUILDING|BLDG/ ZTE /',-1,street);
street = PRXCHANGE('s/FRWY|FREEWAY|FWY/ FWY /',-1,street);
street = PRXCHANGE('s/EXPRWY|EXPRESSWAY|EXPWY|EXPY/ EXPY /',-1,street);
street = PRXCHANGE('s/HIWAY|HIGHWAY/ HWY /',-1,street);
street = PRXCHANGE('s/P ?(0|O) ?BOX\b|\bPMB\b|\bP ?O DRAWER\b|
\bPOST OFFICE DRAWER\b|\bDRAWER\b/ ZPB /',-1,street);
street = PRXCHANGE('s/ RM | ROOM / ZRM /',-1,street);
street = TRANWRD(street,'FIRST ','1ST ');
street = TRANWRD(street,'SECOND ','2ND ');
street = TRANWRD(street,'THIRD ','3RD ');
street = TRANWRD(street,'FOURTH ','4TH ');
street = TRANWRD(street,'FIFTH ','5TH ');
street = TRANWRD(street,'SIXTH ','6TH ');
street = TRANWRD(street,'SEVENTH ','7TH ');
street = TRANWRD(street,'EIGHTH ','8TH ');
street = TRANWRD(street,'NINTH ','9TH ');
street = TRANWRD(street,'TENTH ','10TH ');
street = TRANWRD(street,'ONE ','1 ');
street = TRANWRD(street,'TWO ','2 ');
street = TRANWRD(street,'THREE ','3 ');
street = TRANWRD(street,'FOUR ','4 ');
street = TRANWRD(street,'FIVE ','5 ');
street = TRANWRD(street,'SIX ','6 ');
street = TRANWRD(street,'SEVEN ','7 ');
street = TRANWRD(street,'EIGHT ','8 ');
street = TRANWRD(street,'NINE ','9 ');
street = TRANWRD(street,'TEN ','10 ');
street = PRXCHANGE('s/TWENTY.?(?=[0-9])/2/I',-1,STREET);

run;

/*This macro is not mine but thought I'd share. It likely needs extensive customization and review for individual
needs*/
%MACRO BREAKUP_ADD (PATTERN=,VAR=,NUM=,NEWVAR=);
IF _N_=1 THEN DO;
RETAIN ExpID&NUM;
```

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```
PATTERN="/&PATTERN/I";
ExpID&NUM=PRXPARSE(PATTERN);
END;
CALL PRXSUBSTR(ExpID&NUM, &VAR, POSITION&NUM);
/*The first half of the macro creates a DO Loop that looks for the patterns in the addresses that were created in the
first macro, e.g. ZRM. When the pattern is found, it outputs the starting position of the pattern.*/
IF POSITION&NUM = 1 THEN DO;
MATCH = SUBSTR(&VAR,POSITION&NUM);
&NEWVAR=MATCH;
END;
IF INDEX(&VAR,"&PATTERN") THEN &NEWVAR=SUBSTR(&VAR,POSITION&NUM);
IF INDEX(&VAR,"&PATTERN") THEN SUBSTR(&VAR,POSITION&NUM)=";
%MEND BREAKUP_ADD;
data kfs.OSHA_REG5_HI (DROP=POSITION1 POSITION2 POSITION3 POSITION4 POSITION5
ExpID1 ExpID2 ExpID3 ExpID4 ExpID5 MATCH PATTERN);
set KFS.OSHA_REG5_HI;
%BREAKUP_ADD (PATTERN =ZPB,VAR=STREET,NUM=1,NEWVAR=PO_BOX_STREET);
%BREAKUP_ADD (PATTERN=ZTE,VAR=STREET,NUM=2,NEWVAR=SUITE_STREET);
%BREAKUP_ADD (PATTERN=ZTE,VAR=PO_BOX_STREET,NUM=3,NEWVAR=SUITE_STREET);
%BREAKUP_ADD (PATTERN=ZRM,VAR=STREET1,NUM=4,NEWVAR=RM_STREET);
%BREAKUP_ADD (PATTERN=ZRM,VAR=SUITE_STREET,NUM=5,NEWVAR=RM_STREET);
PO_BOX_STREET = STRIP(TRANWRD(PO_BOX_STREET,'ZPB',"));
SUITE_STREET = STRIP(TRANWRD(SUITE_STREET,'ZTE',"));
RM_STREET = STRIP(TRANWRD(RM_STREET,'ZRM',"));
PO_BOX_STREET=COMPRESS(PO_BOX_STREET,'#');
SUITE_STREET=COMPRESS(SUITE_STREET,'#');
RUN;
```

Code Example 6: Code from CEO/DOL to composite string distance measures
Code file in R, along with a sample data file, for evaluating the relative effectiveness and contrasts between common string distance measures. The code also demonstrates composite string distance measurement, and using high levels of similarity and dissimilarity to identify data quality issues. The code and data file can be found at the following address:
https://github.com/dullandboring/employer-data-matching

Code Example 7: Code compiled by Rebecca Bilbro, in Python, to test string matching functions
The following page contains a variety of tools and code examples to demonstrate and test different string distance measures. The resources include native capabilities in the base distribution, as well as DIFFLIB, FuzzyWuzzy, Jaccard and Jellyfish modules. The code for these varying examples, libraries and functions can be found at the following address:
https://github.com/DruidSmith/Python-Matching-Algorithms/blob/master/String%20Comparison.ipynb

Code Example 8: Module used by OFLC, ETA/DOL to remediate data quality issues
The following code is used by the ETA Office of Foreign Labor Certification (OFLC) to standardize string content in order to minimize the amount of manual de-duplicating required when trying to match or aggregate data.

```
Option Compare Database

Sub ModifyData()

DoCmd.SetWarnings False

'Convert string to proper case: UPDATE PW SET PW.EMPLOYER_LEGAL_BUSINESS_NAME =
StrConv([EMPLOYER_LEGAL_BUSINESS_NAME],3)

DoCmd.OpenQuery "UPDATE_Employer_Name_Proper_Case"


'Remove Special Characters from a string: UPDATE PW SET PW.EMPLOYER_LEGAL_BUSINESS_NAME
= Replace([EMPLOYER_LEGAL_BUSINESS_NAME],"enter special character between quotes"," ")

DoCmd.OpenQuery "UPDATE_Remove_Ampersands"

DoCmd.OpenQuery "UPDATE_Remove_Periods"

DoCmd.OpenQuery "UPDATE_Remove_Commas"

DoCmd.OpenQuery "UPDATE_Remove_Semicolons"

DoCmd.OpenQuery "UPDATE_Remove_Colons"

DoCmd.OpenQuery "UPDATE_Remove_Dashes"

DoCmd.OpenQuery "UPDATE_Remove_Underscores"

DoCmd.OpenQuery "UPDATE_Remove_Open_Paren"

DoCmd.OpenQuery "UPDATE_Remove_Closed_Paren"

DoCmd.OpenQuery "UPDATE_Remove_Apotrophe"

DoCmd.OpenQuery "UPDATE_Remove_Additional_Spaces"

DoCmd.SetWarnings True

MsgBox "Complete"

End Sub
```

Employer Data Matching Workgroup
Data Inventory

Department/ Agency or Office	Component Agency or Office	Dataset Name	Dataset Type: Owned by Data Inventory Respondent, or Desired by Data Inventory Respondent?	Data Update Frequency and Lags	Contact E-mail Address	Link to Data Collection Tool	Data.gov Link	Other Relevant Link(s)	Purpose of the Data Collection	Access Restrictions	Coverage	Unit of Analysis	Definition of "Company"	Corporate Structure and Relationships	Quality of Fields for Matching	Unique Identifier Fields	Name Fields	Address Fields	Country Fields	FIPS Code Fields	Industry Code Fields	Geocoding	Other Fields	Additional Notes
U.S. Department of Commerce	U.S. Census Bureau	Business Register	Owned	Continuously, update frequency varies by sources; lags vary by the reference period of the sources.		The Business Register is updated using information from several federal agencies, including the IRS, the Bureau of Labor Statistics (BLS), the Social Security Administration (SSA) and the Census Bureau. There are data collection tools linked to the sources. For example, the Company Organization Survey (COS), also known as the Report of Organization Survey, is an annual survey performed specifically for the purpose of maintaining BR information about multi-unit establishments' current organization and operating information. https://www.census.gov/econ/overview/mu0700.html http://www.reginfo.gov/public/do/PRAViewICR?ref_nbr=201502-0607-004	Not Applicable	www.census.gov/econ/overview/mu0600.html	To provide a current and comprehensive database of U.S. business establishments and companies for statistical program use.	The Business Register information is confidential (Title 13 and Title 26, US Code). Access is restricted to persons specially sworn to uphold the confidentiality provisions of Title 13 and Title 26.	Establishments of all domestic businesses (except agriculture, forestry, fishing, hunting, rail transportation, the U.S. Postal Service, elementary and secondary schools, colleges and universities, labor organizations, political organizations, religious organizations, public administration, and private households) and organizational units of multi-establishment businesses. The Business Register (BR) covers more than 160,000 multi-establishment companies, representing 1.8 million affiliated establishments, 5 million single establishment companies, and nearly 21 million non-employer businesses.	Establishment-based;	An establishment is a single physical location where business transactions take place and for which payroll and employment records are kept. Groups of one or more establishments under common ownership or control are enterprises. A single-unit enterprise owns or operates only one establishment. A multi-unit enterprise owns or operates two or more establishments.	Multi-unit enterprises may use multiple EINs, and they may use different ones when reporting to different federal agencies, complicating the matching process. The Census Bureau has linked many, but not all of the EINs to enterprises.	The Business Register is one of the most complete, current, and consistent source of establishment- based information about U.S. businesses, and is essential to assuring full coverage and high quality in Federal economic statistics programs. Examples of quality considerations for this source include: · The annual Company Organization Survey covers 30 percent of multi-unit companies and a small sample of firms that were single-unit firms in the most recent quinquennial Economic Census, so establishment openings and closings in the firms not covered may · The business register is divided into employer and non-employer business registers based on payroll employment. Some firms lease their employees from Professional Employer Organizations (PEOs) or use independent contractors. Such firms may appear in the non-employer business register despite having large revenues and many leased and/or contract employees. not be reflected in the business register until after the next Economic Census (though the Census Bureau takes measures to address this). (www.census.gov/econ/overview/mu06	A single-unit enterprise's primary identifier is its Employer Identification Number (EIN). A unique employer unit identification number identifies each establishment owned by a multi-unit enterprise on the Business Register. (https://www.census.gov/econ/susb/methodology.html)	Yes; Primary and secondary business names, permitting identification of both legal and trade designations for businesses that support them (e.g., franchises); character	Yes; Physical location, mailing address, post office (city or town) name, postal state abbreviation. ZIP+4; character	This field is not currently populated in the BR, but it may be possible to link in this information from the Company Organization Survey	Yes; County and State; character	6-digit NAICS codes; (https://www.census.gov/econ/susb/methodology.html)	Yes; latitude and longitude to six digits after the decimal; numeric	Census Tract (character), Census Block (character), 4-digit SIC codes (character)	Please also reference the working paper, "Documenting the Business Register and Related Economic Business Data" papers.ssrn.com/sol3/papers.cfm?abstract_id=2755723
U.S. Department of Labor	U.S. Bureau of Labor Statistics - Office of Employment and Unemployment Statistics (OEUS)	Quarterly Census of Employment and Wages (QCEW) Business Register (BR)	Owned	The QCEW BR is updated quarterly, and the data become available 6 months after the reference cycle.	QCEWinfo@bls.gov, BDMinfo@bls.gov	www.reginfo.gov/public/do/PRAViewICR?ref_nbr=1406-1220-001 www.reginfo.gov/public/do/PRAViewDocument?ref_nbr=201406-1220-001	catalog.data.gov/dataset/q uarterly-census-employment-and-wage-area	www.bls.gov/bdm, www.bls.gov/cew	To provide a quarterly census of all establishments under State unemployment insurance programs, representing about 98 percent of employment on nonfarm payrolls. This database of U.S. business establishments serves as the basis for multiple statistical programs; Sampling frame & benchmark(CES, JOLTS, PPI, OES, UALS, SOII, and NCS, which includes the ECI, EBS and ORS), labor market research, Business Employment Dynamics (BED) data.	All microdata are confidential subject to BLS non-disclosure standards.	Employment, wages, and administrative data (name, location, etc.) for over 9.5 million establishments covering approximately 98% of all employment.	Establishment-based	An economic unit that produces goods or services, usually at a single physical location, and engages in one or predominantly one activity. Potential lay synonyms: business, worksite, brick& mortar, site, storefront. Lay users my use "establishment" interchangeably with "firm" in the QCEW BR, however, there is a significant distinction between the two terms.	Multi-unit enterprises may use multiple EINs, and they may use different ones when reporting to different federal agencies, complicating the matching process. The dataset indicates whether an establishment is a single or multi-location establishment.	In order to ensure the highest possible quality of data from the QCEW program, BLS and the States verify and update, if necessary, the NAICS, location, and ownership classifications of all units on a 3-year cycle. Government units in public administration are not reviewed routinely.	EIN	Yes; Legal Name and Trade Name, character.	Yes; Physical location and mailing address;		Yes; County and State; character	6-digit NAICS codes;	Yes; latitude and longitude to six digits after the decimal; numeric		See also: www.bls.gov/opub/mlr/pdf/hom2h5.pdf
U.S. Department of Labor	Wage and Hour Division	Wage and Hour Investigative Support and Reporting Database (WHISARD)	Owned	Continuously; Not Applicable.	brown.brandon@dol.gov	Not Applicable.	catalog.data.gov/dataset/ wage-and-hour-division-compliance-action-data	ogesdw.dol.gov/views/dat a_catalogs.php	WHISARD is an automated data processing system that enables investigators, managers, and assistants in the Wage and Hour Division (WHD) to process complaints; assign and investigate cases; manage and close cases; assist with outreach; record and monitor investigator time; track case history through narratives and diary entries; process FOIA and publication requests; and report to management. (www.dol.gov/oasam/ocio/programs/Pi A/WHD/WHD-WHISARD.htm)	Publicly available data is available at: ogesdw.dol.gov/views/data_catalogs.ph p Otherwise, procedures are in place that must be followed before allowing users access to the system. The process is designed to comply with the principles of least privilege and separation of duties. (www.dol.gov/oasam/ocio/programs/Pi A/WHD/WHD-WHISARD.htm)	WHISARD contains WHD compliance actions. Publicly available data show all compliance actions from FY 2005 - onward.	Compliance action;	WHISARD includes data on employers, following the definitions of "employer" within the statutes administered and enforced by WHD. The WHD is responsible for administering and enforcing some of our nation's most comprehensive labor laws, including: the minimum wage, overtime, and child labor provisions of the Fair Labor Standards Act (FLSA); the Family and Medical Leave Act (FMLA); the Migrant and Seasonal Agricultural Worker Protection Act (MSPA); worker protections provided in several temporary visa programs; and the prevailing wage requirements of the Davis-Bacon Act (DBA) and the Service Contract Act (SCA).	WHISARD has limited functionality for corporate and industry structures. It is possible to infer linkages from other fields (for example, Trade Name, Legal Name, or EIN).	"…WHISARD has been improved as an information system…Quality control procedures have been introduced that improve the accuracy and reliability of key fields. The ability to run analyses for specific employers, industries, or geographic areas has been enhanced." (https://www.dol.gov/whd/resources/strategicenforcement.pdf)	EIN	Employer Trade Name; Employer Legal Name; character	Employer Street Address, City Name and State Abbreviation, Zip Code; character			NAICS Code; character			
U.S. Department of Commerce	U.S. Census Bureau	Longitudinal Employer Household Dynamics (LEHD)	Owned	Updated quarterly.	CES.Local.Employment.Dyna mics@census.gov	See QCEW entry.	catalog.data.gov/dataset/l ehd-origin-destination-employment-statistics-lodes www2.census.gov/ces/wp/ 2014/CES-WP-14-26.pdf	www.census.gov/ces/data products/lehddata.html www2.census.gov/ces/wp/	The purpose is to provide high quality local labor market information and to improve the Census Bureau's economic and demographic data programs.	The data are confidential (Title 13 and Title 26, US Code). Access is restricted to persons specially sworn to uphold the confidentiality provisions of Title 13 and Title 26.	Employment, wages, and administrative data (name, location, etc.) for over 9.5 million establishments covering approximately 98% of all employment.	Job-level (worker-firm combinations)	An economic unit that produces goods or services, usually at a single physical location, and engages in one or predominantly one activity. Potential lay synonyms: business, worksite, brick& mortar, site, storefront. Lay users my use "establishment" interchangeably with "firm" in the QCEW, however, there is a significant distinction between the two terms.	The data are reported at the firm-state level and for reporting units (establishments) of the firm-state. The data have been linked to the Census Business Register to attach a firm identification number, firm age, and firm size.	The worker-level LEHD data are the earnings records used for the administration of the Unemployment Insurance program. The LEHD establishment-level data are downstream of the Quarterly Census of Employment and Wages. In addition to benefitting from the data quality monitoring and improvements made by these upstream programs, the LEHD program also maintains a data quality staff to ensure the quality of the microdata.	Firm identifier is state employer identification number (SEIN), reporting unit ("establishment") identifier is SEINUNIT id.	Legal Name and Trade Name, character.	Yes; Physical location and mailing address of establishments		Yes; County and State; character	6-digit NAICS codes;	Yes; latitude and longitude to six digits after the decimal; numeric	Census Tract (character), Census Block (character), 4-digit SIC codes (character)	See also: lehd.ces.census.gov/
Equal Employment Opportunity Commission	Surveys Division	EEO-1	Desired	Annually	benita.marsh@eeoc.gov	www.eeoc.gov/employers/ eeo1survey/index.cfm	www.eeoc.gov/employers/ eeo1survey/2007instructio ns.cfm www.eeoc.gov/employers/ eeo1survey/upload/eeo1-2 2.pdf		The EEO-1 Report is a compliance survey mandated by federal statute and regulations. The survey requires company employment data to be categorized by race/ethnicity, gender and job category. The EEO-1 Report is used by the EEO-1 Joint Reporting Committee comprised of the Equal Employment Opportunity Commission (EEOC) and the Department of Labor's Office of Federal Contract Compliance Programs (OFCCP) to collect data from private employers and government contractors about their women and minority workforce. The agencies also use the EEO-1 Report data to support civil rights enforcement and to analyze employment patterns, such as the representation of women and minorities within companies, industries or regions.	All reports and information from individual reports will be kept confidential, as required by Section 709(e) of Title VII of the Civil Rights Act of 1964. 42 U.S.C. 2000e-8(e). Only data aggregating information by industry or area, in such a way as not to reveal any particular employers statistics, will be made public.	All Private employers who are (1) subject to Title VII of the Civil Rights Act of 1964, as amended with 100 or more employees, or (2) private employers subject to Title VII who have fewer than 100 employees if the company is owned or affiliated with another company, or there is centralized ownership, control or management (such as central control of personnel policies and labor relations) so that the group legally constitutes a single enterprise, and the entire enterprise employs a total of 100 or more employees. All federal contractors (private employers), who (1) are not exempt as provided for by 41 C.F.R. § 60-1.5; (2) have fifty or more employees and (a) have a federal contract or first-tier subcontract worth $50,000 or more, or (b) act as depositories of federal funds in any amount, or (c) act as issuing and paying agents for U.S. savings bonds and notes. Single-establishment employers submit only one EEO-1 report, while employers whose business was conducted at more than one location submitted a company-wide consolidated report, a headquarters report, and individual reports for each establishment with fifty or more employees.	At the firm level for all covered firms. Also at the establishment level for establishments with at least 50 employees.	"Employer" under Section 701(b), Title VII of the Civil Rights Act of 1964, as amended, means a person engaged in an industry affecting commerce who has fifteen or more employees for each working day in each of twenty or more calendar weeks in the current or preceding calendar year, and any agent of such a person, but such term does not include the United States, a corporation wholly owned by the government of the United States, an Indian tribe, or any department or agency of the District of Columbia subject by statute to procedures of the competitive service (as defined in section 2102 of Title 5 of the United States Code), or a bona fide private membership club (other than a labor organization) which is exempt from taxation under Section 501(c) of the Internal Revenue Code of 1954; OR any person or entity subject to Executive Order 11246 who is a federal government prime contractor or subcontractor at any tier (including a bank or other establishment serving as a depository of federal government funds, or an issuing and paying agent of U.S. Savings Bonds and Notes, or a holder of a federal government bill of lading) or a federally-assisted construction prime contractor or subcontractor at any tier.	Multi-establishment employers, i.e., employers doing business at more than one establishment, must complete online: (1) a report covering the principal or headquarters office; (2) a separate report for each establishment employing 50 or more persons; and (3) a separate report (Type 8 record) for each establishment employing fewer than 50 employees, OR an Establishment List (Type 6 record), showing the name, address, and total employment for each establishment employing fewer than 50 persons, including a Type 6 employment report for all establishments working at establishments employing fewer than 50 employees by race, sex, and job category. For the EEO-1 online application, keyed employment data automatically transfers to the overall Consolidated Report. The total number of employees indicated on the headquarters report, PLUS the establishment reports, PLUS the list of establishments employing fewer than 50 employees, MUST equal the total number of employees shown on the Consolidated Report.	EIN. Government contractors are also asked to provide their DUNS number.	Parent company name, establishment name.	Yes; number and street address, city, state, and zip code for parent company and establishment. Also county for establishment.	No.		Verbal description of major activity of the establishment.		Employment definition includes leased employees, unlike the Census Business Register.
Securities and Exchange Commission	Integrated Award Environment	SEC Company Filings	Desired	Continuously, daily updates		www.sec.gov/info/edgar.s html		www.sec.gov/dera/data/fi nancial-statement-data-sets.html www.sec.gov/edgar/search help/edgarfulltextfrequentlyaskedquestions.htm www.sec.gov/edgar/search tools.htm	EDGAR, the Electronic Data Gathering, Analysis, and Retrieval system, performs automated collection, validation, indexing, acceptance, and forwarding of submissions by companies and others who are required by law to file forms with the U.S. Securities and Exchange Commission (SEC). Its primary purpose is to increase the efficiency and fairness of the securities market for the benefit of investors, corporations, and the economy by accelerating the receipt, acceptance, dissemination, and analysis of time-sensitive corporate information filed with the agency.	Publicly available through EDGAR.	All public companies must file. Private companies also make filings when issuing unregistered securities.					EIN, CIK	Business name	Business and mailing addresses. Includes number and street, city, state, 9-digit zip code.			4-digit SIC code			
Department of Health and Human Services	Administration for Children and Families, Office of Child Support Enforcement	National Directory of New Hires (NDNH)	Desired	Quarterly	linda.boyer@acf.hhs.gov		www.acf.hhs.gov/css/reso urce/a-guide-to-the-national-directory-of-new-hires	The NDNH is a national repository of employment, earnings, and unemployment insurance (UI) information to help state child support agencies locate noncustodial parents, establish child support orders, and enforce child support orders.	Researchers can only receive access to data without personal identifiers, and only for research found by the Secretary of Health and Human Services to be likely to contribute to achieving the purposes of Part A or Part D of the Social Security Act. There has been discussion about new legislation to include statistical purposes in the list of authorized uses.	All firms doing business with the Federal government must file.	Similar to QCEW?	Establishment				EIN	Employer name	Business address, including number, street name, city, state, and zip code (5-digit, and second field for 4-digit extension if provided)	Foreign country code					
General Services Administration	Integrated Award Environment	System of Award Management (SAM)	Desired	Continuously, in real time		www.sam.gov/portal/SAM /#1		www.sam.gov select "help" and "user guide"	Registration is required to apply for a Federal govt. contract or grant.	Searchable database and recent filings publicly available on sam.gov.	All firms doing business with the Federal government must file.	Establishment	In accordance with the Federal Acquisition Regulation	Additional information available for authorized users	Data are matched to authoritative sources.	DUNS number, CAGE code	Business name	Business and mailing street address, city, state, 5-digit zip code, and 4-digit zip code extension.	Country abbreviation.		NAICS code		company website	

Employer Data Matching Workgroup
Data Inventory

Department/ Agency	Component Agency or Office	Dataset Name	Dataset Type: Owned by Data Inventory Respondent, or Desired by Data Inventory Respondent?	Data Update Frequency and Lags	Contact E-mail Address	Link to Data Collection Tool	Data.gov Link	Other Relevant Link(s)	Purpose of the Data Collection	Access Restrictions	Coverage	Unit of Analysis	Definition of "Company"	Corporate Structure and Relationships	Quality of Fields for Matching	Unique Identifier Fields	Name Fields	Address Fields	Country Fields	FIPS Code Fields	Industry Code Fields	Geocoding	Other Fields	Additional Notes
U.S. Department of Commerce	U.S. Census Bureau	Governments Intergrated Directory(GID): A migration from the GID to the Governments Master Address File (GMAF) is planned for October 2017.	Owned	The GID universe is updated continuously, although a formal and comprehensive update occurs once every five years during the Census of Governments. There are also annual surveys, including the Boundary and Annexation Survey, the Annual Finance Survey and the Annual Survey of Personnel and Payroll, which provide periodic updates. From the annual survey's collection period, the data are reviewed and edited as necessary, and the GID universe is updated 1.5-2 years following initial collection cycle.	eizmd.gus.pclt3@census.gov	www.census.gov/govs/cog/	N/A	www.meps.ahrq.gov for published statistics from this dataset	In order to measure government activity, various surveys collect statistics for state and local governments and their dependent agencies. A complete list of local governments is needed to sample for these surveys. This list of governments is found in the Governments Integrated Directory (GID).	Public Sector Statistics are considered public information, which is available online through AFF. We also provide additional statistics, not available in our publications, upon data user request in the form of a Special Tabulation File.	The GID includes all governments in the United States, along with their dependent agencies. This includes all states and dependent agencies, counties and dependent agencies, cities, towns and townships, municipalities, special districts, authorities, boards and commissions.	Government Unit	A governmental units is defined as an organized entity which, in addition to having governmental character, has sufficient discretion in the management of its own affairs to distinguish it as separate from the administrative structure of any other governmental unit. An entity must possess all three of the critical attributes to be regarded as a government: Existence as an Organized Entity, Governmental Character, and Substantial Autonomy.	Both parent and dependent agencies as well as independent agencies.		Each unit has a 14 digit GID ID: SS T CCC UUU SUP SB where: SS = State. Numeric sequence assigned to the states alphabetically – Alabama is 01, Alaska 02, and so forth, until Wyoming at 51. Note the District of Columbia is assigned code 09 and the U.S. Federal Government is assigned code 00. T = type of government. As defined by the Census Bureau. Government type codes are 0 = state governments 1 = county governments 2 = municipal governments 3 = township governments 4 = special district governments 5 = school district governments 6 = Federal Government CCC = county area within the state. The county area codes, are assigned alphabetically within each state area, although there are some exceptions where county consolidations have taken place or new counties have been created. UUU = unit code within the county area. The unit code identifies a specific government within the state, county, and type of government sequence. They, too, are generally alphabetical within the county area and type of government combination, but exceptions exist (especially for special districts). The unit code for a county government is usually the same as its county area code. SUP = supplemental unit code, for dependent agencies of the parent unit. The supplemental code identifies different dependent agencies of the same parent state or local government. Every supplement must have a parent government. The first nine digits of a supplement and parent code always are the same. SB = subsidiary code for dependent agencies that require separate data collection / canvassing. The subsidiary code is used for component units of dependent agencies that require a separate data collection. A good example is found in state dependent university systems, where separate campuses exist for a dependent university, each campus having its own subsidiary code.	Yes - complete governmental unit name	Yes physical location and mailing address	N/A	N/A	N/A	No		Although this information is specific to the current GID, most of the information also applies to the GMAF with the exception of the ID format.
U.S. Census Bureau	Sponsored by the Agency for Healthcare Research and Quality	Medical Expenditure Panel Survey- Insurance Component - Public Sector Employer Sample	Owned	Fielded annually.	Karen.Davis@ahrq.hhs.gov	www.meps.ahrq.gov has information on survey questionnaires and methodology reports.	N/A	www.meps.ahrq.gov for published statistics from this dataset	To collect information about employer sponsored health insurance. The MEPS-IC collects information on whether an employer offers coverage, details of plans and information on establishment and workforce characteristics. For the government sample, information is collected on all plans that are offered to active employees.	Public Sector Statistics are considered public information, which is available online through AFF: Analysis in our publications is available in our publications, upon data user request in the form of a Special Tabulation File.	A sample drawn from the Governments Integrated Directory (GID) of 3,000 government units	Government Unit	A governmental units is defined as an organized entity which, in addition to having governmental character, has sufficient discretion in the management of its own affairs to distinguish it as separate from the administrative structure of any other governmental unit. An entity must possess all three of the critical attributes to be regarded as a government: Existence as an Organized Entity, Governmental Character, and Substantial Autonomy.	Both parent and dependent agencies as well as independent agencies.		Each unit has a 14 digit GID ID: SS T CCC UUU SUP SB where: SS = State. Numeric sequence assigned to the states alphabetically – Alabama is 01, Alaska 02, and so forth, until Wyoming at 51. Note the District of Columbia is assigned code 09 and the U.S. Federal Government is assigned code 00. T = type of government. As defined by the Census Bureau. Government type codes are 0 = state governments 1 = county governments 2 = municipal governments 3 = township governments 4 = special district governments 5 = school district governments 6 = Federal Government CCC = county area within the state. The county area codes, are assigned alphabetically within each state area, although there are some exceptions where county consolidations have taken place or new counties have been created. UUU = unit code within the county area. The unit code identifies a specific government within the state, county, and type of government sequence. They, too, are generally alphabetical within the county area and type of government combination, but exceptions exist (especially for special districts). The unit code for a county government is usually the same as its county area code. SUP = supplemental unit code, for dependent agencies of the parent unit. The supplemental code identifies different dependent agencies of the same parent state or local government. Every supplement must have a parent government. The first nine digits of a supplement and parent code always are the same. SB = subsidiary code for dependent agencies that require separate data collection / canvassing. The subsidiary code is used for component units of dependent agencies that require a separate data collection. A good example is found in state dependent university systems, where separate campuses exist for a dependent university, each campus having its own subsidiary code.	Yes - complete governmental unit name	Yes physical location and mailing address		N/A	N/A	Yes, latitude and longitude to six digits after the decimal; numeric		Although this information is specific to the current GID, most of the information also applies to the GMAF with the exception of the ID format.
U.S. Census Bureau	Sponsored by the Agency for Healthcare Research and Quality	Medical Expenditure Panel Survey- Insurance Component - Private Sector Employer Sample	Owned	Fielded annually.	Karen.Davis@ahrq.hhs.gov	www.meps.ahrq.gov has information on survey questionnaires and methodology reports.	N/A	www.meps.ahrq.gov for published statistics from this dataset	To collect information about employer sponsored health insurance. The MEPS-IC collects information on whether an employer offers coverage, details of plans and information on establishment and workforce characteristics. For the private-sector sample, information is collected on up to 4 plans that are offered to active employees.	The Business Register information is confidential [Title 13 and Title 26, US Code]. Access is restricted to persons specially sworn to uphold the confidentiality provisions of Title 13 and Title 26. Micro-data can be used at a Census Research Data Center.	A sample drawn from the Business Register of approximately 40,000 establishments each year.	Private-sector establishments	An establishment is a single physical location where business transactions take place and for which payroll and employment records are kept. Groups of one or more establishments under common ownership or control are enterprises. A single-unit enterprise owns or operates only one establishment. A multi-unit enterprise owns or operates two or more establishments. The treatment of establishments on the Business Register differs according to whether the establishment is part of a single-unit or multi-unit enterprise. (https://www.census.gov/econ/susb/me thodology.html)	Multi-unit enterprises may use multiple EINs, and they may use different ones when reporting to different federal agencies, complicating the matching process. The Census Bureau has linked many, but not all of the EINs to enterprises.	The Business Register provides the most complete, current, and consistent source of establishment -based information about U.S. businesses, and is essential to assuring full coverage and high quality in Federal economic statistics programs. Examples of quality considerations for this source include: · The annual Company Organization Survey covers 30 percent of multi-unit companies and a small sample of firms that were single-unit firms in the most recent quinquennial Economic Census, so establishment openings and closings in firms not covered may not be reflected in the business register until after the next Economic Census. · The business register is divided into employer and nonemployer business registers based on payroll employment. Some firms lease their employees from Professional Employer Organizations (PEOs) or use independent contractors. Such firms may appear in the nonemployer business register despite having large revenues and many leased and/or contract employees. www.census.gov/econ/overview/mu060 0.html)	A single-unit enterprise's primary name, permitting identification of both legal and trade designations for businesses that support them (e.g., franchises); character	Yes, Primary and secondary business names, permitting identification of both legal and trade designations for businesses that support them (e.g., franchises); character	Yes: Physical location, mailing address, post office (city or town) name, postal state abbreviation; ZIP+4; character	This field is not currently populated in the BR, but it may be possible to link in this information from the Company Organization Survey	Yes; County and State; character	6 digit NAICS codes	Yes, latitude and longitude to six digits after the decimal; numeric	Census Tract (character), Census Block (character), 4-digit SIC codes (character)	
U.S. Department of Education	National Center for Education Statistics	Common Core of Data (CCD)	Owned	Annual Collection. LAG: Data on 2014-15 school year are set to be released in September	mark.glander@ed.gov	eden.ed.gov/EDENPortal/	catalog.data.gov/dataset/e dfacts-general-information 201112	ncos.ed.gov/ccd/	CCD is a program of the U.S. Department of Education's National Center for Education Statistics that annually collects fiscal and non-fiscal data about all public schools, public school districts and state education agencies in the United States. The data are supplied by state education agency officials and include information that describes schools and school districts, including name, address, and grade level; descriptive information about students and staff, including demographics; and fiscal data, including revenues and current expenditures.	Publicly available data is available through ncos.ed.gov/ccd/ccddata.asp Otherwise, restricted-use datasets can be requested by licensees of the Institute for Education Science's Restricted Use Data License	Public, K-12 local education agencies. Universe collection performed from all state education agencies each year.	State, Local Education Agency and School	N/A. Collection is focused upon state and local education agencies.	All schools are reported as members of local education agencies/school districts. NCES assigns each school district a unique identifier (LEAID) and each school it's own unique identifier (SCHNO). These IDs are combined into a 12 digit identifier (NCESSCH) which is unique for each school		LEAID, NCESSCH, FIPST, SCHNO, STID, SEASCH	LEANM, SCHNAM	MSTREE, MCITY, MSTATE, MZIP, MZIP4, LSTREE, LCITY, LSTATE, LZIP, LZIP4	N/A	FIPST	N/A	For individual schools only: LATCOD, LONCOD	CONUM (County Number), CONAME (County Name), CSCODX (Congressional District code)	

Employer Data Matching Workgroup
Data Inventory

Department/ Agency	Component Agency or Office	Dataset Name	Dataset Type: Owned by Data Inventory Respondent, or Desired by Data Inventory Respondent	Data Update Frequency and Lags	Contact E-mail Address	Link to Data Collection Tool	Data.gov Link	Other Relevant Link(s)	Purpose of the Data Collection	Access Restrictions	Coverage	Unit of Analysis	Definition of "Company"	Corporate Structure and Relationships	Quality of Fields for Matching	Unique Identifier Fields	Name Fields	Address Fields	Country Fields	FIPS Code Fields	Industry Code Fields	Geocoding	Other Fields	Additional Notes
U.S. Department of Education	National Center for Education Statistics	Integrated Postsecondary Education Data System (IPEDS)	Owned	Annual Collection. LAG: Institutional Characteristics data on 2015-16 was released in July 2016	ipedstools@rti.org	nces.ed.gov/ipeds	catalog.data.gov/dataset/2013314-integrated-postsecondary-education-data-system		IPEDS provides basic data needed to describe — and analyze trends in — postsecondary education in the United States, in terms of the numbers of students enrolled, staff employed, dollars expended, and degrees earned...	Public data is available through: nces.ed.gov/ipeds/Home/UseTheData	Postsecondary Institutions. Universe collection performed each year	Postsecondary Institutions	N/A. Collection is focused upon postsecondary istitutions	Several institutions are recognized as "multi-institution" or "multi-campus" organizations, otherwise each institution is reported as an independent entity		UNITID (Unique identification number of the institution); EIN (Employer Identification Number); OPEID (Office of Postsecondary Education (OPE) ID Number); NEWID (UNITID for merged schools); F1SYSCOD (ID number of multi-instition or multi-campus organization)	INSTNM (Institution [entity] name); FYSYSNAM (Name of multi-institution or multi-campus organization)	ADDR, CITY, STABBR, ZIP	N/A	FIPS	N/A	LONGITUD; LATITUDE		
U.S. Department of Education	National Center for Education Statistics	Private School Universe Survey (PSS)	Owned	Biennial (most recent publicly available data: 2011-12)	stephen.broughman@ed.gov	N/A	catalog.data.gov/dataset/2015516-private-school-universe-survey		The purposes of this data collection activity are; a) to generate biennial data on the total number of private schools, teachers, and students; and b) to build an accurate and complete list of private schools to serve as a sampling frame for NCES surveys of private schools...	Public data available at: nces.ed.gov/surveys/pss/pssdata.asp	All private schools	Individual private schools	N/A	N/A		PPIN (Permanent Indentification Number)	PINST (School Name)	PADDRS; PCITY; PSTABB; PZIP; PZIP4; PCNTY; PCNTNM; PL_ADD; PL_CIT; PL_STABB; PL_ZIP; PL_ZIP4	N/A	PSTANSI (ANSI State Code)	N/A	LATITUDE##; LONGITUDE## (where ## = year of collection)	REGION (Census region)	
U.S. Department of Education	Office for Civil Rights / National Center for Education Statistics	Civil Rights Data Collection	Owned	Biennial Collection. LAG: Data on 2013-14 school year were released in Spring 2016	stephanie.miller@ed.gov; mary.schifferli@ed.gov (OCR)	Not currently online (informational link: www2.ed.gov/about/offices/list/ocr/data.html)	catalog.data.gov/dataset/c ocrdata.ed.gov/	ivil-rights-data-collection-2013-14	Since 1968, the U.S. Department of Education (ED) has conducted the Civil Rights Data Collection (CRDC) to collect data on key education and civil rights issues in our nation's public schools...	Publicly available data is available through ocrdata.ed.gov. Otherwise, restricted use datasets can be requested by licensees of the Institute for Education Science's Restricted Use Data License	Public, K-12 local education agencies. Universe collection from all agencies every two years	Primary unit of anlysis: individual public schools. Secondary unit of analysis: individual school districts/local education agencies	N/A. Collection is focused upon school districts	There are three main identifiers (IDs) used in the data files: one to identify the LEA, one to identify the school (in school level files), and a combined LEA/school ID: LEAID is the 7-digit district identification code...		LEAID, SCHID, COMBOKEY	LEA_NAME	LEA_ADDRESS; LEA_CITY; LEA_ZIP	N/A	NOTE: The first two digits of LEAID are the FIPS Code for that district, however the FIPS code is not separately reported within its own field	N/A		N/A	
U.S. Department of Commerce - Bureau of Economic Analysis	Direct Investment Division (DID)	BEA surveys on U.S. direct investment abroad	Owned	quarterly, annual, and every five years depending on the data item and on the use of the reporting unit	ricardo.limes@bea.gov	www.bea.gov/surveys/diau su v.htm	Not Applicable	Statistics: http://www.bea.gov/intern ational/direct_investment_ multinational_companies_ comprehensive_data.htm	BEA produces comprehensive statistics on U.S. direct investment abroad that are essential to the compilation of the U.S. economic accounts and for the analysis of multinational enterprises (MNEs).	Aggregates are public; microdata are non public	Statistics on U.S. multinational enterprises (MNEs). U.S. direct investment abroad (USDIA) is defined as ownership by a U.S. investor of at least 10 percent of a foreign business...	Enterprise level; data are available on U.S. parents and each of their foreign affiliates. For U.S. parents, data are available for the fully consolidated U.S. domestic business enterprise.	The U.S. reporter is the U.S. person that has direct investment in a foreign business enterprise, including a branch. If the U.S. person is a business enterprise, the U.S. parent is the fully consolidated U.S. domestic business enterprise...	The fully consolidated U.S. domestic business enterprise is defined as: 1) the U.S. business enterprise whose voting securities are not owned more than 50 percent by another U.S. business enterprise, and 2) proceeding down each ownership chain from that U.S. business enterprise...	The data are collected and reviewed according to documented procedures and best practice standards and on-going review by the appropriate supervisor. The data are validated using a battery of edit checks to detect potential errors and to otherwise ensure that the data are accurate, reliable, and relevant for the estimates being made. Data are routinely revised as more complete source data become available.	EINs are collected for U.S. parents.	Name of U.S. parent, name of contact person for U.S. parent, name of certifying official, and name of each foreign affiliate. (all character)	Address of U.S. parent and address of contact person for U.S. parent.	Each foreign affiliate record includes a field indicating which country it is located in. All U.S. parents are located in the United States.	No	International Surveys Industry (ISI) classification system, which is based on 4-digit NAICS codes (http://www.bea.gov/surveys/iftcmat.htm).		Telephone and fax numbers for contact person and certifying official. Email address of contact person.
U.S. Department of Commerce - Bureau of Economic Analysis	Direct Investment Division (DID)	BEA surveys on foreign direct investment in the United States	Owned	quarterly, annual, and every five years depending on the data item and on the use of the reporting unit	ricardo.limes@bea.gov	www.bea.gov/surveys/fdiu su v.htm	Not Applicable	Statistics: www.bea.gov/internationa l/direct_investment_multin ational_companies_compr ehensive_data.htm	BEA produces comprehensive statistics on foreign direct investment in the United States is defined as the ownership by a foreign investor of 10 percent or more of a U.S. business. The direct investor is known as a foreign parent, and the foreign-owned U.S. business is known as a U.S. affiliate...	Aggregates are public; microdata are non public	Statistics on U.S. affiliates of foreign multinational enterprises (MNEs). Foreign direct investment in the United States is defined as the ownership by a foreign investor of 10 percent or more of a U.S. business...	Enterprise level; data are available for the consolidated U.S. affiliate.	A U.S. affiliate is a business enterprise located in the United States which is directly or indirectly owned or controlled by a person of another country to the extent of 10 percent or more. A business enterprise means any organization, association, branch, or venture which exists for profit making purposes or to otherwise secure economic advantage, and any ownership of any real estate.	The consolidated U.S. affiliate consists of the U.S. business enterprise which is directly owned by a foreign person and all U.S. business enterprises proceeding down each ownership chain whose voting securities are more than 50 percent owned by the U.S. business enterprise above it...	The data are collected and reviewed according to documented procedures and best practice standards and on-going review by the appropriate supervisor. The data are validated using a battery of edit checks to detect potential errors and to otherwise ensure that the data are accurate, reliable, and relevant for the estimates being made. Data are routinely revised as more complete source data become available.	EINs are collected for the U.S. business enterprise which is foreign-owned and for each U.S. business enterprise consolidated with it.	Name of U.S. affiliate, name of contact person for U.S. affiliate, name of certifying official, and name of each U.S. business enterprise consolidated. (all character)	Address of U.S. affiliate and address of contact person for U.S. affiliate.	Each U.S. affiliate is located in the United States. Each U.S. affiliate record includes a field indicating the country of the foreign parent and a field with the country of the ultimate beneficial owner (which may be a foreign or U.S. person or entity).	No	International Surveys Industry (ISI) classification system, which is based on 4-digit NAICS codes (http://www.bea.gov/surveys/iftcmat.htm).		Telephone and fax numbers for contact person and certifying official. Email address of contact person. Number of employees associated with each industry. Number of employees, number of manufacturing employees, gross PP&E, and commercial property by state.
U.S. Department of Commerce - Bureau of Economic Analysis	Balance of Payments Division	BEA surveys on U.S. international trade in services	Owned	Quarterly and annually depending on the level of component detail; more granular data by country and by type of service are published annually than quarterly	christopher.stein@bea.gov	www.bea.gov/surveys/iusss su v.htm	Not Applicable	Statistics: www.bea.gov/iTable/iTabl e.cfm?reqid=62&step=1&a cdn=1&isuri=1&6210=1	BEA combines data from the trade in services surveys with data from other sources to compile the official statistics of the U.S. economic international transactions accounts...	Aggregates are public; microdata are non public	BEA's international trade in services survey collect data on U.S. exports and imports of transportation services, financial services, insurance services, other business services, and charges for the use of intellectual property.	Enterprise level; data are available for the consolidated U.S. enterprise. Survey respondents are required to identify the primary Employer Identification Number (EIN) used to file U.S. income or payroll taxes and the industry code that best describes the major activity of the U.S. reporter.	Respondents include U.S. persons engaged in international trade in services where person means any individual, branch, partnership, associated group, association, estate, trust, corporation, or other organization (whether or not organized under the laws of any State), and any government (including a foreign government, the United States Government, a State or local government, and any agency, corporation, financial institution, or other entity or instrumentality thereof)...	The fully consolidated U.S. domestic business enterprise is defined as: 1) the U.S. business enterprise whose voting securities are not owned more than 50 percent by another U.S. business enterprise, and 2) proceeding down each ownership chain from that U.S. business enterprise...	The data are collected and reviewed according to documented procedures and best practice standards and on-going review by the appropriate supervisor. The data are validated using a battery of edit checks to detect potential errors and to otherwise ensure that the data are accurate, reliable, and relevant for the estimates being made. Data are routinely revised as more complete source data become available.	EINs of survey respondents are collected.	Name of U.S. "person" responding to the survey, name of contact person, and name of certifying official, all character fields.	Address of the U.S. "person" responding to the survey and address of contact person; both character fields.	All survey respondents are U.S. "persons."	No	BEA's International Surveys Industry (ISI) classification system, which is based on 4-digit NAICS codes (http://www.bea.gov/surveys/iftcmat.htm).		Telephone and fax numbers for contact person and certifying official. Email address of contact person.
U.S. Department of Labor	Occupational Safety & Health Administration	OSHA Information System (OIS)	Owned	Continuously; Not Applicable.	Moore, Joshua (Moore.Joshua@dol.gov)	Not Applicable.	catalog.data.gov/dataset7 publisher=U.S. Department of Labor Occupational Safety and Health Administration	enforcedata.dol.gov/views /data_catalogs.php	To track, document and analyze OSHA's Enforcement and Consultation programs.	Only users in the OSHA family have access to the system. Some data is available via osha.gov and the data.gov	OIS contains all Enforcement and Consultation information starting in FY 11 in a staggered role out. All Federal enforcement was on the system starting in FY13.	Compliance actions, Outreach and Consultation services	"Employer" means a person engaged in a business affecting commerce who has employees, but does not include the United States or any State or political subdivision of a State. OSHA does inspect Federal agencies but does not issue citations with penalties. OSHA collects data on the establishment (business location) level; employers are the "parents" of establishments.	OIS does not have this functionality at this time.	All data is user entered. We have edit checks on the number of characters on fields such as the FEIN but we have no way to verify the numbers entered are accurate.	Federal EIN/TIN, DUNS, DUNS plus4 and CAGE Code. All of these are optional in the system.	Establishment Name and Doing Business As Name	Full address of Mailing Business and Site Address.	Yes; County and State; character	6 digit NAICS	No	Business and Mailing address contain Country, International City, International Division and International Postal Code	
U.S. Department of Labor	Occupational Safety & Health Administration	OSHA Legacy Data (OLD) replaces the Legacy IMS system (Aug 22, 2016)	Owned	Continuously; Not Applicable.	Legasse, Gizaw (Legasse.Gizaw@DOL.GOV)	Not Applicable.	catalog.data.gov/dataset7 publisher=U.S. Department of Labor Occupational Safety and Health Administration	enforcedata.dol.gov/views /data_catalogs.php	To track, document and analyze OSHA's Enforcement and Consultation programs. NO new Case data is being collected but maintained for historical records. (New case data is being collected in OIS)	Only users in the OSHA family have access to the system. Some data is available via osha.gov and the data.gov	The Integrated Management Information System (IMS) contained all Enforcement and Consultation information starting in FY 1970. The IMS data was migrated over a new database called OSHA Legacy Data (OLD)	Compliance actions, Outreach and Consultation services	"Employer" means a person engaged in a business affecting commerce who has employees, but does not include the United States or any State or political subdivision of a State. OSHA does inspect Federal agencies but does not issue citations with penalties. OSHA collects data on the establishment (business location) level; employers are the "parents" of establishments.	OLD does not have this functionality at this time.	All data is user entered. We have edit checks on the number of characters on fields such as the FEIN but we have no way to verify the numbers entered are accurate.	Federal EIN/TIN, DUNS. All of these are optional in the system.	Establishment Name and Doing Business As Name	Full address of Mailing Business and Site Address.	Yes; County and State; character	6 digit NAICS	No	Business and Mailing address contain Country, International City, International Division and International Postal Code	

Employer Data Matching Workgroup
Data Inventory

Department/ Agency	Component Agency or Office	Dataset Name	Dataset Type: Owned by Data Inventory Respondent, or Desired by Data Inventory Respondent?	Data Update Frequency and Lags	Contact E-mail Address	Link to Data Collection Tool	Data.gov Link	Other Relevant Link(s)	Purpose of the Data Collection	Access Restrictions	Coverage	Unit of Analysis	Definition of "Company"	Corporate Structure and Relationships	Quality of Fields for Matching	Unique Identifier Fields	Name Fields	Address Fields	Country Fields	FIPS Code Fields	Industry Code Fields	Geocoding	Other Fields	Additional Notes
U.S. Department of Labor	Occupational Safety & Health Administration	Whistleblower Program Retaliation Data	Owned	Continuously, Not Applicable.	Garrahan, MaryAnn - OSHA <Garrahan.MaryAnn@dol.gov>	www.osha.gov/whistleblower/WBComplaint.html (public)	Not Applicable	Not Applicable	To track and administer the OSHA whistleblower protection provisions that include more than twenty whistleblower protection statutes, including Section 11(c) of the Occupational Safety and Health (OSH) Act, which prohibits any person from discharging or in any manner retaliating against any employee because the employee has complained about unsafe or unhealthful conditions or exercised other rights under the Act. Whistleblower protection provisions administered by OSHA also protect employees from retaliation for reporting violations of various airline, commercial motor carrier, motor vehicle safety, consumer product, environmental, consumer finance, food safety, health insurance reform, nuclear, pipeline, public transportation agency, railroad, maritime and securities laws.	Only pertinent OSHA -DWPP employees	The Integrated Management Information System (IMIS) contains Whistleblower Complaint and Investigation information starting in FY1982.	Whistleblower complaints	"Employer" is statutorily defined by the numerous statutes which contain the 22 different whistleblower provisions administered by OSHA. Under the whistleblower provisions, "employer" may include public and private sector employers, including the U. S. Postal Service, as well as other federal, state, and tribal entities. OSHA collects data on the establishment (business location) level; employers are the "parents" of establishments.	Whistleblower database does not have this functionality	All data is user entered. We have edit checks on the number of characters on fields such as the FEIN but we have no way to verify if the numbers entered are accurate.	Federal EIN/TIN, DUNS, All of these are optional in the system.	Establishment/Employer Name and Doing Business As Name	Full address of Mailing Business and Site Address	Business and Mailing address contain Country, International City, International Division and International Postal Code	Yes, County and State, character	6 digit NAICS	No		
U.S. Small Business Administration	Office of Entrepreneurial Development	Entrepreneurial Development Management Information System (EDMIS)	Owned	Updated Quarterly, no lag	edmis@sba.gov	N/A		N/A	www.sba.gov/edmis	Data are collected for program administration, performance, and evaluation purposes.		Client (entrepreneur or small business owner) level data is available for all those who have sought services from an OED Resource Partner or online Learning Center course. There are approximately 1 M records annually across all programs.	Client (clients may or may not own a business)	The client self-identifies if they have an active business	N/A	There is no client level PII in the system	None	Client names are not required	Client address is not required	Not required	No	Industry Category (not NAICS)	No	No	N/A
U.S. Department of Commerce	US Census Bureau	Survey of Business Owners	Owned	Annually	ewd.survey.of.business.owners@census.gov	www.census.gov/programs-surveys/sbo/technical-documentation/questionnaires.html		www.census.gov/econ/overview/mu0300.html	The Survey of Business Owners (SBO) provides the only comprehensive, regularly collected source of information on selected economic and demographic characteristics for businesses and business owners by gender, ethnicity, race, and veteran status.	The data are confidential (Title 13 and Title 26, US Code). Access is restricted to persons specially sworn to uphold the confidentiality provisions of Title 13 and Title 26.	Included are all nonfarm businesses filing Internal Revenue Service tax forms as individual proprietorships, partnerships, or any type of corporation, and with receipts of $1,000 or more. The SBO covers both firms with paid employees and firms with no paid employees. The SBO is conducted on a company or firm basis rather than an establishment basis. A company or firm is a business consisting of one or more domestic establishments that the reporting firm specified under its ownership or control.	Firm, usually single unit	A firm is a business organization or entity consisting of one domestic establishment (location) or more under common ownership or control. All establishments are included as part of the owning or controlling firm. For the economic census, the terms "firm" and "company" are synonymous.	NA	Outside data must first be matched to the Business Register and then linked to the SBO using the BR's business identifiers.	Internal Census identifiers such as the LBDNUM	NA (available through Business Register link)	NA (available through Business Register link)		Yes; County and State, character	6-digit NAICS	NA (available through Business Register link)		
U.S. Census Bureau	US Census Bureau	Longitudinal Business Database	Owned	Annually	ces.contacts@census.gov	The LBD is built by linking consecutive years of the Census Bureau's Business Register		www.census.gov/ces/dataproducts/datasets/lbd.html		The Business Register information is confidential (Title 13 and Title 26, US Code). Access is restricted to persons specially sworn to uphold the confidentiality provisions of Title 13 and Title 26.	The data are compiled by combining data	Establishment based;	An establishment is a single physical location where business transactions take place and for which payroll and employment records are kept. Groups of one or more establishments under common ownership or control are enterprises. A single-unit enterprise owns or operates only one establishment. A multi-unit enterprise owns or operates two or more establishments.	Multi-unit enterprises may use multiple EINs, and they may use different ones when reporting to different federal agencies, complicating the matching process. The Census Bureau has linked many, but not all of the EINs to enterprises.	Outside data must first be matched to the Business Register and then linked to the LBD using the BR's business identifiers.	A Census-constructed "LBDNUM" field links establishments over time.	NA	NA	NA	Yes, county, state FIPS, character.	6-digit NAICS codes;	Yes; latitude and longitude to six digits after the decimal; numeric		
U.S. Department of Transportation	NHTSA	Manufacturer Information Database (MID)	Owned	Continuously	manufacturerinfo@dot.gov	vpic.nhtsa.dot.gov/mid	catalog.data.gov/dataset/nhtsa-product-information-catalog-and-vehicle-listing-vpic-mid-8ee79	vpic.nhtsa.dot.gov/	Per CFR 49 Part 566, CFR 49 Part 565, CFR 49 Part 574	Manufacturer information database contains the following items: - World Manufacturer Identifiers (WMIs) assigned to a manufacturer assigned by SAE and referenced in vPIC. - Motor vehicle manufacturer information (Address, Products Manufactured, Makes, etc.). - Motor vehicle identification information (vehicle VIN) - Vehicle equipment plant information	Publicly available data is available at: vpic.nhtsa.dot.gov/mid	establishment	Motor vehicle modifiers for handicapped	MID is designed to store parent/child relationship, but most of the fields are not populated.	When data are collected, there is a group of staff reviewing the information before they are accepted into the system. Email are sent out to the entities to confirm the contact information submitted. For vehicle identification information, quality check run are regularly performed to compare with the results from other databases.	manufacturerID (System generated)	Common Name, Previous Legal Name URL All Company DBAs Trade/Brand Names	Full company mailing address	Contains country fields for non-US companies			NO	no	
U.S. Department of Transportation	NHTSA	Manufacturer Information Database (MID) - Modifiers	Owned	Continuously	manufacturerinfo@dot.gov	vpic.nhtsa.dot.gov/mid/home/ModifierSearch	TBD	vpic.nhtsa.dot.gov/	CFR 49 Part 595	Manufacturer information database contains the following items: - Vehicle modifier (for handicapped) registration information	Publicly available data is available at: vpic.nhtsa.dot.gov/mid/home/ModifierSearch	establishment	Motor vehicle industry manufacturers and alterers of vehicles, motor vehicle equipment plants, motor vehicle modifiers for handicapped	MID is designed to store parent/child relationship, but most of the fields are not populated.	When data are collected, there is a group of staff reviewing the information before they are accepted into the system. Email are sent out to the entities to confirm the contact information submitted. For vehicle identification information, quality check run are regularly performed to compare with the results from other databases.	manufacturerID (System generated)	Common Name, Previous Legal Name URL All Company DBAs Trade/Brand Names	Full company mailing address	Contains country fields for non-US companies	no		NO		
U.S. Department of Transportation	Pipeline and Hazardous Materials Administration (PHMSA)/ Office of Pipeline Safety	pipeline operator registry data is contained in PHMSA'sPipeline DataMart(PDM)	Owned	Continuous update by operator for registration and notification changes.	william.mccarthy@dot.gov	Not publicly available	catalog.data.gov/dataset/collection_package_id=1a13d07b-a2e4-4acc-b194-cf4dc330e350	primis.phmsa.dot.gov/comm/reports/operator/Operatorlist.html	The pipeline national operator registry is a data collection tool from PHMSA developed to provide pipeline operators an automated portal in which they can register and update changes to their pipelines. This data is combined with various regulatory applications to perform inspections and enforcements of all interstate gas and liquid pipelines.	this data is collected and conformed with inspections, enforcements,incident and annual reporting in a PHMSA data warehouse that is available to PHMSA and state regulatory agencies		registration based	Companies may be either an owner of a pipeline or an operator for another owner.	Corporate pipeline operator may structure themselves as a single corporate entity or sub corporate entities.		an operator identification number is assigned by PHMSA upon operator registration in the PHMSA appliation portal.	Company name	Physical address	headquarters country	none	none	none	company contacts(name, phone,emailaddress)	
U.S. Department of Transportation	Pipeline and Hazardous Materials Administration(PH MSA) / Office of Hazmat Safety	Hazardous Materials Information Portal (HIP)	Owned	Updated daily by various PHMSA and FMCSA sources	adrian.carter@dot.gov	Not publicly available	Special Portals: catalog.data.gov/dataset/h at/e-services Approvals: catalog.data.gov/dataset/h azmat-special-permits-data-mining-tool-d7acf catalog.data.gov/dataset/h azmat-approvals-data-mining-tool-9e63b Hazmat Incident reports: catalog.data.gov/dataset/h azmat-incident-reports-data-mining-tool-eb800 Hazmat Registration: catalog.data.gov/dataset/h azmat-registration-statistics-2011-f2e80	www.phmsa.dot.gov/hazmat	The purpose of gathering this data is to help regulate those that manufacture, transport, ship, test and package hazardous materials.	This information is restricted to US DOT hazmat personnel	The data includes hazardous materials special permits, approvals, registrations, incidents, RAM certifications and enforcement case details.	All records are transactional	Companies include hazmat carriers, shippers, manufacturers, packagers and testers.	Corporate relationship exists between locations that share a legal liability	Company information is maintained in the HIP master company hub (MCH). The fields include company name, address, city, state zip and D&B number Any company that does business with PHMSA trhough the various transactions gets validated by D&B and is added to the MCH if they don't already exist.	The D&B number is used as the unique identifier in the master company hub. If no D&B number exists, the system generates a unique number.	Company name	Physical address	physical country	FIPS country code	DOT Mode of transportation, US DOT #, D&D number	N/A		N/A
U.S. Department of Transportation	Federal Aviation Administration	Air Operators	Owned	Weekly	Tim.Perez@faa.gov			av-info.faa.gov/data/AirOperators/tab/airopera.txt	The FAA regulates the Air Operators.	The dataset is publicly available.	Contains Air Operator name, certificate number, and types of certificates. Contains 5210 records.	Establishment-based	The company is an employer. This is a designator of an Air Operator or Air Agency by a governmental registration authority. They are certificate holders. The designator is an identifying code that identifies an organization as holding one or more certificates for conducting aviation operations. Air Operator is often referred to as an "Air carrier" which is a organization that undertakes directly by lease, or other arrangement, to engage in air transportation.			Air Operator Designation Code (Degn_Code)	Air Operator Name	None	No, does not contain this field.	No, does not contain this field.	None	None	None	The file layout is: av-info.faa.gov/data/AirOperators/AirOperators.doc
U.S. Department of Transportation Contractor record to an associated Air	Federal Aviation Administration	Contractors for Air Operators	Owned	Weekly	Tim.Perez@faa.gov			av-info.faa.gov/data/AIROPERATORS/fix/contract.txt	The FAA regulates the Air Operators.	The dataset is publicly available.	Contains Air Operator name, address, and type. Contains 3075 records.	Establishment-based	The company is an employer. The company provides contracting services to Air Operators.			Contractor Designation Code (Contractor_Dogn_Code)	Air Operator Contractor Name	Employer Street Address, City Name and State Abbreviation, Zip Code Contains the full address.	Yes, the dataset does include a Country field and contains data of countries outside of the United States, such as Canada.	No, does not contain this field.	None	None	Air Operator Designation Code (Dogn_Code) can be used to tie this Contractor record to an associated Air Operator record in the various datasets containing Air Operator.	The file layout is: av-info.faa.gov/data/AIROPERATORS/Contract.doc
U.S. Department of Transportation Contractor record to an associated Air	Federal Aviation Administration	Air Operator CEO Name	Owned	Weekly	Tim.Perez@faa.gov			av-info.faa.gov/data/AIROPERATORS/tab/operceo.txt	The FAA regulates the Air Operators.	The dataset is publicly available.	Contains Air Operator CEO's name, address, phone Contains 5910 records	Establishment-based	The company is an employer. This is a designator of an Air Operator or Air Agency by a governmental registration authority. They are certificate holders. The designator is an identifying code that identifies an organization as holding one or more certificates for conducting aviation operations. Air Operator is often referred to as an "Air carrier" which is a organization that undertakes directly by lease, or other arrangement, to engage in air transportation.			Air Operator Designation Code (Dogn_Code)	Name of the Chief Executive Officer of an Air Operator	Chief Executive Officer Street Address, City Name and State Abbreviation, Zip Code Contains the full address.	Yes, the dataset does include a Country field and contains data of countries outside of the United States, such as Canada.	No, does not contain this field.	None	None	Air Operator Designation Code (Dogn_Code) can be used to tie this Contractor record to an associated Air Operator record in the various datasets containing Air Operator.	The file layout is: av-info.faa.gov/data/AIROPERATORS/OperCEO.doc
U.S. Department of Transportation	Federal Aviation Administration	Air Operator Doing Business As Name	Owned	Weekly	Tim.Perez@faa.gov			av-info.faa.gov/data/AirOperators/tab/operdba.txt	The FAA regulates the Air Operators.	The dataset is publicly available.	Contains Air Operator Doing Business As Authorized name Contains 1784 records.	Establishment-based	The company is an employer. This is a designator of an Air Operator or Air Agency by a governmental registration authority. They are certificate holders. The designator is an identifying code that identifies an organization as holding one or more certificates for conducting aviation operations. Air Operator is often referred to as an "Air carrier" which is a organization that undertakes directly by lease, or other arrangement, to engage in air transportation.			Air Operator Designation Code (Dogn_Code)	Authorized Doing Business As Name for an Air Operator	None	No, does not contain this field.	No, does not contain this field.	None	None	Air Operator Designation Code (Dogn_Code) can be used to tie this Contractor record to an associated Air Operator record in the various datasets containing Air Operator.	The file layout is: av-info.faa.gov/data/AIROPERATORS/OperDBA.doc
U.S. Department of Transportation	Federal Motor Carrier Safety Administration	Motor Carrier Census	Owned	Continuously	Norma.Ott@dot.gov			ai.fmcsa.dot.gov/SMS/Tools/Downloads.aspx	The FMCSA regulates carriers engaged in the transportation of people and goods across state lines.	The dataset is publicly available.	Is a Census of interstate motor carriers	Establishment-based	Per the Federal Motor Carrier Safety Regulations. See guidance www.fmcsa.dot.gov/registration/unified-registration-system	Only headquarters element. No relationships maintained.	Company Name, address, and EIN/TIN (TIN in the case of small owner-operators)	US DOT Number	Company name	Employer Street Address, City Name and State Abbreviation, Zip Code Contains the full address.	Yes, if a Mexican/Canadian domiciled company.	No, does not contain this field.	None	None	USDOT Number is an agency-assigned code.	See download link for file layout.

Employer Data Matching Workgroup
Data Inventory

Department/ Agency	Component Agency or Office	Dataset Name	Dataset Type: Owned by Data Inventory Respondent, or Desired by Data Inventory Respondent?	Data Update Frequency and Lags	Contact E-mail Address	Link to Data Collection Tool	Data.gov Link	Other Relevant Link(s)	Purpose of the Data Collection	Access Restrictions	Coverage	Unit of Analysis	Definition of "Company"	Corporate Structure and Relationships	Quality of Fields for Matching	Unique Identifier Fields	Name Fields	Address Fields	Country fields	FIPS Code Fields	Industry Code Fields	Geocoding	Other Fields	Additional Notes
U.S. Department of Transportation	Federal Railroad Administration	List of railroads and companies	Owned	Continuously	Andrew.Martin@dot.gov			safetydata.fra.dot.gov/Offi ceofSafety/publicsite/down loads/RailroadAndCompan yFile/RailroadAndCompany File.aspx	The FRA regulates railroad companies.	The dataset is publicly available.		Establishment-based	See safetydata.fra.dot.gov/OfficeofSafety/pu blicsite/ReportingLevelDefinitions.aspx	See safetydata.fra.dot.gov/OfficeofSafety/pu blicsite/ReportingLevelDefinitions.aspx	Company Name, address	Railroad code	Company name	Employer Street Address, City Name and State Abbreviation, Zip Code. Contains the full address.	No, does not contain this field.	No	None	none	Railroad identifier is industry-assigned	See download link for file layout.
U.S. Small Business Administration	Office of Disaster Assistance	Disaster Credit Management System	Owned	Updated Annually	N/A	www.sba.gov/loans-grants/see-what-sba-offers/sba-loan-programs/disaster-loans/disaster-loan-data	N/A	www.sba.gov/loans-grants/see-what-sba-offers/sba-loan-programs/disaster-loans/disaster-loan-data	Data are collected for program general public knowledge and evaluation purposes.	None	2004 - 2015	Individual Disaster Loan Approval	Individuals / companies are not revealed	N/A	No PII is within files	Declaration ID / zip code / state / county / business or home loan	N/A	N/A	Not required	No	No	zip code	No	N/A
U.S. Small Business Administration	Office of Capital Access	EIS	Owned	Updated weekly run	N/A	N/A	N/A	N/A	E-tran - system for electronically capturing loan application information from lenders; Data collected to track 7(a) & 504 loan approvals	None	All loans approved, information updated in real-time with weekly database refreshes.	Individual Loan Approval	Borrower Firm Name, TIN	N/A	High: Full details of loan approval process, including the lender and bank, vetted by bank before the approval	TIN, Demographic, location, details on loan program	Borrower & Lender Names captured	Borrower & Lender Addresses captured	Yes	No	NAICS Code; character	Zip code	No	N/A
U.S. Small Business Administration	Office of Capital Access	MPERS	Owned	Updated weekly run	N/A	N/A	N/A	N/A	MPERS - system for Microloan intermediaries to self-report Microloan loan information; Data collected from Microloan intermediaries on loans to Microborrowers	None	Self-reported Microborrower information, reported up to 3 months after Microloan approval	Individual Microloan Approval	Microborrower Name, SS#	N/A	Medium: Data is self-reported from lender-intermediaries; there is no QA on the data	SS#, Demographic, location	Microborrower and Microlender Intermediary Names captured	Microborrower and Microlender Intermediary Addresses captured	Yes	No	NAICS Code; character	Zip code	No	N/A
U.S. Department of Labor	Employee Benefits Security Administration (EBSA)	Form 5500 Data Sets	Owned	The Form 5500 Data is updated on the website first business day of each month.	foiarequest@dol.gov	www.dol.gov/agencies/ebs a/about-ebsa/our-activities/public-disclosure/foia/form-5500-datasets	www.dol.gov/agencies/ebs a/about-ebsa/our-activities/public-disclosure/foia/form-5500-datasets	catalog.data.gov/dataset/f orm-5500-foia-datasets	www.efast.dol.gov/portal/ app/disseminate?executio n=e2s1	Data is used for compliance, enforcement, and research. The Internal Revenue Service (IRS), Department of Labor (DOL), and Pension Benefit Guaranty Corporation (PBGC) have consolidated certain returns and report forms to reduce the filing burden for plan administrators and employers. Employers and administrators who comply with the instructions for the Form 5500 generally will satisfy the annual reporting requirements for the IRS, and DOL, and PBGC.	The data sets are shared by IRS, PBGC, and DOL. Some data containing Personal Identifying information (such as SSN) will not be available.	Over 700,000 Pension and Welfare filings for a given plan year. Specific plan information are attached (participant, asset, etc.). A return/report must be filed every year for every pension benefit plan, welfare benefit plan, and for every entity that files as a DFE as specified below (pursuant to Code section 6058 and ERISA sections 104 and 4065).	Plan based unit of analysis	Usually based on entire firm, not on a single establishment. Firms will be reported in data base as plan sponsors or plan service providers.	Sponsor to benefit plan(s) structure. Same sponsor may provide multiple plans. Each company may be represented in various plans. (If any connection can be identified, it's usually through the EIN)	Name fields are not very dependable. Numerous different names can be spelled, shortened, etc for 1 given plan or sponsor. Ack_ID and EIN fields are primarily used. Other variables such as participant, asset, and plan characteristic fields are used to ensure quality. Various edit checks are performed to ensure no duplicate filings are tabulated.	EIN; Ack_ID	Yes; Plan name, Sponsor name, Plan administrator name.	Yes, all are simple mailing addresses and not where the plans are established; Sponsor mailing address and Plan administrator mailing address;	Theoretically, the data can contain non-US address. If outside US, enter the foreign routing code, if applicable. Leave U.S.state and zip code blank if entering a foreign routing code and country name.	No	No	6-digit NAICS codes;	No	Possibly match name fields and EINs to other sources. Not sure about the resulting quality.	Page 35 from the following pdf has data variables: www.dol.gov/agencies/ebsa/researchers /data/retirement/pension-user-guide-2013.pdf
U.S. Department of Treasury	Internal Revenue Service - Statistics of Income	Business Master File	Owned	Data are updated continuously; Data becomes available weekly.	sis@irs.gov	Not applicable	Data.gov doesn't host any of our data, it just points at our pages on IRS.gov. As far as us pointing out to Data.gov, there's only a couple places where we direct users out to the Data.gov site through Tax Stats on IRS.gov.	www.irs.gov/uac/tax-stats	IRS: The purpose of data collection is mainly for determining Federal tax liability for businesses required to file. SOI: The data are used to produce statistics on income, deductions, credits and other taxes, as reported by businesses. The current design is a probability sample stratified by Business type (as indicated by the IRS form filed) and either by size of total assets alone or size of total assets and a measure of income.	Federal Tax Information (FTI) is confidential [Title 26, US Code] and shared with other government agencies under IRC 6103(j) provisions.	IRS: All Federal business tax returns that meet IRS filing requirements. SOI: Selected active Federal business tax returns based on SOI's sample design.	Tax Return.	Definition of "company" is based on Title 26 requirement.	The dataset consists of individually filed returns which can represent: corporations (a single establishment; subsidiary establishment or consolidated filed returns representing a group of establishments); partnerships and other pass-through entities; or sole proprietorships.	Most matching is accomplished using the EINs provided by entities as reported on Federal tax returns. SOI uses exact matching with EINs and data processing begins with information already extracted for IRS administrative purposes. SOI performs limited internal "data cleaning" for statistical purposes. This includes organizing data to make it structurally consistent, coding data items to make them analytically useful, and validating values to ensure mathematical consistency. Contact information is validated as part of routine administrative processing of returns at the time they are received by the IRS.	Employer Identification Number (EIN)	Yes; Parent Company Name	Yes; Tax Filing Address, City, State Abbreviation, Zip Code	-	-	6-digit NAICS codes		-	The focal point of the answers provided is based on data collection for Statistics of Income (SOI) unless otherwise noted.

From Data to Evidence to Policy

Recommendations for the Commission on Evidence-Based Policymaking

MAY, 2016

The William T. Grant Foundation

The William T. Grant Foundation supports research to improve the lives of young people ages 5–25 in the United States. Our goal is to accumulate a body of knowledge that will advance theory, policy, and practice and contribute to improved outcomes and opportunities for youth, today and in the future. In 2014, we launched an initiative to invest in research to identify effective responses to inequality in its many forms. And since 2009, we have supported studies that provide insight into how policymakers, administrators, and service providers acquire, interpret, and use research evidence. In 2015, we signaled a new direction in this initiative, calling for studies that identify, create, and test strategies to improve the use of research evidence in ways that benefit youth.

The Forum for Youth Investment

The Forum for Youth Investment is a nonprofit, nonpartisan "action tank" dedicated to helping communities and the nation make sure all young people are Ready by 21®: ready for college, work and life. A trusted resource for policy makers, advocates, researchers and program professionals, the Forum provides youth and adult leaders with the information, connections and tools they need to create greater opportunities and outcomes for young people. The Forum manages a number of centers and projects, including Big Picture Approach Consulting, the David P. Weikart Center for Youth Program Quality, the Children's Cabinet Network and SparkAction. The core work of the Forum is helping leaders, organizations, partnerships and systems – at the local, state and national levels – assess, improve and align their practices and policies.

From Data to Evidence to Policy
Recommendations for the Commission on Evidence-Based Policymaking

The Forum for Youth Investment and the William T. Grant Foundation are pleased to submit the following recommendations to the Commission on Evidence-Based Policymaking. We are encouraged by the Commission's potential to promote the use of research evidence in policymaking, and we offer these insights with the hope of helping the Commission make the most of its historic opportunity.

These suggestions are drawn from our experience as conveners of a learning group of senior career staff and appointees in research offices focused on children, youth, and families within the U.S. Departments of Education, Labor, Justice, and Health and Human Services, as well as in the Corporation for National and Community Service and the National Science Foundation. These agencies invest in research and evaluation to build policy-relevant evidence and will likely be charged with implementing many of the Commission's recommendations. They also have experience responding to similar challenges in the past. For these reasons, their insights may guide the Commission in developing a transformational set of recommendations.

The Path from Data to Evidence to Policy

A narrow interpretation of the Commission on Evidence-Based Policymaking legislation might suggest the Commission's charge is primarily to determine how the federal government can share and link administrative data sets. Accomplishing this aim would be of significant value. But a broader interpretation of its charge suggests that the Commission must not stop there. It should also consider *how the federal government can use data to create the evidence required for smart policy decisions,* as well as *how to create the infrastructure to support the use of evidence in policymaking*.

We urge the Commission to prioritize those elements of its charge that point toward these broader aims:

- Emphasize how data "may be integrated and made available to facilitate program evaluation, continuous improvement, policy-relevant research, and cost-benefit analyses by qualified researchers and institutions;" and
- Examine "how data and results of research can be used to inform program administrators and policymakers to improve program design."

Sharing and linking data is necessary but not sufficient to achieve these goals. The data must be deployed in research and evaluation to create evidence, which must be then be used to inform policymaking. Laying the groundwork for the path from data to evidence to policy is essential to the Commission's charge.

Sharing and Linking Data → Using Data to Create Evidence → Using Evidence to Inform Policymaking

Sharing and Linking Data

The Commission should recommend that data are collected and shared in ways that facilitate their use in research and evaluation.

Sharing data is a valuable first step. But the data take on added power when they can be used in research and evaluation studies. The Commission can fulfill its charge of addressing "how data and results can be used to inform program administrators and policymakers" by recommending ways that administrative data systems can be made ready for use in research and evaluation. The Commission could craft recommendations that would help ensure that data are linked; are of sufficient quality; and are delivered in formats that encourage their use in research that answers policymakers' questions.

Linking separate data sets together increases the value of each for research and evaluation. One federal staff member in our learning group commented, "I am working on linking existing databases to conduct research. I need to figure out what kinds of data are being collected….Who is tracking relevant outcomes, and how do you synthesize that with community-level data from multiple sources to tell the impact of interventions across multiple domains?"

Linking existing data can also enable faster and cheaper research studies. As one participant reported, "There has been a lot of thinking overall in our department on the opportunities these longitudinal data systems have for low cost evaluations. A whole group of people in our program offices are focused on this right now." But using data that are not designed for research can be challenging. Sometimes the quality of the data is poor or unknown. As a learning group participant put it, "It is not easy to figure out if a given set of administrative data is high-quality enough to be used in a research context."

Sometimes the ways that the data are shared make it difficult to produce useful research reports. As one learning group participant shared, "Only one or two people in each of our agencies know how to manipulate specific databases, and those people have a long list of requests from multiple agencies to do specific data runs. We are hoping that we can take on the burden of getting the data ready. A lot of the data we have, like those that manage case files, were not created to be used for research, so that is a heavier lift. We want to give agencies a more realistic view of the data they actually have."

Using Data to Create Evidence

The Commission should recommend that federal agencies adopt a broad and inclusive view of the types of research studies that can and should be produced with administrative data.

The power of data increases when they are used to create **research evidence** (see sidebar). Too often, however, a narrow conceptualization of data *as* evidence limits the ability of policymakers to gain full understanding of an issue. The Commission could add value to the field by advancing a framework that delineates the types of research evidence that should be created to guide policymaking.

DEFINITION OF RESEARCH EVIDENCE

The William T. Grant Foundation defines research evidence as "a type of evidence derived from applying systematic methods and analyses to address a predefined question or hypothesis. This includes descriptive studies, intervention or evaluation studies, meta-analyses, and cost-effectiveness studies conducted within or outside research organizations."

The Commission may wish to reinforce frameworks such as the Institute of Education Sciences/National Science Foundation's *Common Guidelines for Education Research Development* framework[1] and the Health and Human Services Administration for Children and Families' *Common Framework for Research & Evaluation.*[2] Adopting these types of frameworks would help ensure that policymakers not only receive findings from the full range of types of research evidence, but review this evidence with a clear understanding of the level of rigor and quality inherent in each type of study, and what types of questions are answerable by each respective research methodology.[3]

Using Evidence to Inform Policymaking

The Commission should recommend that federal agencies support partnerships between researchers and policymakers that inform key research questions and facilitate the use of research evidence.
Partnerships between researchers and policymakers can improve the use of research evidence by guiding researchers to ask questions that respond to the needs of policymakers, building stronger practice-focused research networks or community-based participatory approaches, and creating a culture of learning in which administrators, policymakers and other government leaders include research evidence in their deliberations.

The growing literature about how and when research evidence is and is not used in policymaking can inform the Commission's work. These studies "complicate the common conception of research users as merely rational actors who have questions, go in search of research to answer them, and then apply it to their decisions…. In none of their cases does research use easily boil down to a single moment or an isolated decision….It is not a simple process whereby research 'facts' are passed from researchers to research users and then applied in a linear decision making process. Instead, research use is contingent, interactive, and iterative. It involves people individually and collectively engaging with research over time, bringing their own and their organization's goals, motivations, routines, and political contexts with them."[4] It is often helpful to construct evidence in a process of engagement, in which the needs of decision makers help shape research questions and findings are delivered in an accessible and timely fashion through relationships of trust and mutual understanding.

The Commission should recommend ways to strengthen the federal infrastructure for producing research evidence that can inform policymaking.
To address its charge to examine how data may be "made available to facilitate program evaluation, continuous improvement, policy-relevant research, and cost-benefit analyses by qualified researchers and institutions," it is important for the Commission to create recommendations for strengthening the federal infrastructure for using data to create evidence, and using that evidence to inform policymaking.

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[1] Available at: http://www.nsf.gov/pubs/2013/nsf13126/nsf13126.pdf
[2] Available at: http://www.acf.hhs.gov/programs/opre/resource/the-administration-for-children-families-common-framework-for-research-and-evaluation
[3] While there may not yet be widely accepted quality standards for the all types of research, some of our learning group members pointed to the following article as a promising start: Gottfredson, D. C., Cook, T. D., Gardner, F. E. M., Gorman-Smith, D., Howe, G. W., Sandler, I. N., & and Zafft, K. M. (2015). Standards of evidence for efficacy, effectiveness, and scale-up research in prevention science: Next generation. *Prevention Science*, *16*, 893-926.
[4] Tseng, V. & Nutley, S. (2014). Building the Infrastructure to Improve the Use and Usefulness of Research in Education. In K.S. Finnigan & A.J. Daly (Eds.). *Using Research Evidence in Education: From the Schoolhouse Door to Capitol Hill*. Springer: New York. Available at: http://wtgrantfoundation.org/resource/building-the-infrastructure-to-improve-the-use-and-usefulness-of-research-in-education

An infrastructure could include elements such as formal policies, codified practices, established offices, and interagency coordinating structures.

Fortunately, there are existing efforts that the Commission could build upon. The Department of Labor and the Department of Health and Human Services, Administration for Children and Families both created evaluation policies that can serve as models for other agencies.[5] The Department of Labor created a Chief Evaluation Office, and conducts an annual survey to assess its performance meeting the research needs of program offices. HHS Administration for Children and Families, Office of Planning Research and Evaluation also published a set of principles to guide all of its evaluation work.[6] Further, the Institute of Education Sciences has protections, granted by Congress in its authorizing language, that support scientific integrity and independence from political influence.

Additionally, a subset of learning group participants funded a National Academy of Sciences Roundtable to consider an infrastructure for evaluation that parallels the existing infrastructure for statistical agencies. (Federal statistical agencies receive support from a Chief Statistician housed at the White House Office of Management and Budget; a public-private, interagency Committee on National Statistics; and a carefully codified and updated set of Principles and Practices for a Federal Statistical Agency.[7]) The Commission may wish to be briefed on this effort. The Commission may also wish to be briefed on the types of infrastructure that have been created to support federal agencies' performance management functions, such as the role the federal Performance Improvement Council plays in fostering widespread and effective use of performance management practices across federal agencies and sparking cross-cutting performance improvements.[8]

Conclusion

The creation of the Commission on Evidence-Based Policymaking is well timed. As shared in the William T. Grant Foundation's recent blog series *Evidence at the Crossroads*, "research evidence can improve public policies and programs, but fulfilling that potential will require honest assessments of current initiatives, coming to terms with outsized expectations, and learning ways to improve social interventions and public systems."[9]

The Commission is well positioned to drive this work forward, especially if it focuses on the full continuum of activity from sharing and linking data, to using those data to create research evidence, to using that evidence to inform policymaking.

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[5] See http://www.dol.gov/asp/evaluation/EvaluationPolicy.htm and
http://www.acf.hhs.gov/programs/opre/resource/acf-evaluation-policy
[6] The HHS principles are posted at: http://www.acf.hhs.gov/opre/resource/acf-evaluation-policy
[7] Principles and practices for federal statistics agencies are posted at:
http://sites.nationalacademies.org/DBASSE/CNSTAT/Principles_and_Practices_for_a_Federal_Statistical_Agency/index.htm
[8] On the role of the Performance Improvement Council, see: http://www.gsa.gov/portal/content/133807
[9] See: http://wtgrantfoundation.org/tag/evidence-at-the-crossroads

Memorandum

TO: The Commission on Evidence-based Policy

FROM: Members of the Interagency Council on Evaluation Policy

SUBJECT: "Top-5 List" of issues and solutions related to Federal evaluation activity

DATE: November 22, 2016

Several individual members of the Interagency Council on Evaluation Policy appreciate the opportunity to provide input to the Commissioners as you proceed to consider strategies to improve data for use in evidence-building. The following are the top issues of concern to Federal evaluation offices, along with several solutions for the Commission to consider.

1. ISSUE: *Key federal administrative and statistical data sources* are inaccessible for evaluation purposes or incomplete as a result of statute, policy, or administrative practices.

   SOLUTION: Establish a mechanism to assist agencies to act upon their M-14-06 statistical and administrative data priorities:
   a. <u>Establish cooperative information technology procedures (e.g., data security, privacy, and data maintenance) for Federal agencies that share or exchange data to do so more efficiently</u> (currently agencies have different informational technology and privacy rules and procedures which typically requires a new or modified memorandum of agreement)
   b. <u>Establish expedited procedures for Federal agencies to more easily and directly access data from Federal statistical agencies for evaluations</u> (e.g., develop special approval and access procedures for Federal agencies rather than requiring them to follow the cumbersome general public procedures for accessing data through Census Research Data Centers; allow federal agencies to access the data directly from secure Federal offices and computers).
   c. <u>Require records in some key Federal data bases used for evaluations, such as the National Directory of New Hires (NDNH) to be maintained permanently</u> to allow data to be linked and tracked for evaluations requiring long-term data (e.g., pre-program and post-program follow up).

2. ISSUE: *Federal evaluation capacity and activity* is uneven across agencies

   SOLUTION: Establish an independent federal evaluation system to 1) articulate the specific role and value of evaluation in evidence-building, 2) facilitate the development of strong, independent evaluation offices in all agencies, and 3) reinforce the importance of evaluation offices to strengthen the support for the offices within their agencies.

a. <u>Encourage Departments and Agencies to establish independent evaluation offices</u> to coordinate evaluation efforts and build evaluation capacity, but also acknowledge there is often a complementary and important role for special independent research institutes, bureaus or offices where they exist (e.g., DOJ-NIJ, USDA-ERS, DOL-BLS, Commerce-Census).

b. <u>Develop general principles and practices for Federal evaluation offices</u> (see NAS workshop)

c. <u>Clarify that evaluation and evidence-building is a unique activity, not to be conflated with data collection or performance measurement and monitoring</u>:
   i. Evidence is not reducible to data (see Goldstein/ACF testimony)
   ii. Evaluation capacity is not reducible to data collection capacity (see Goldstein/ACF testimony)
   iii. Rigorous evaluation is not reducible to impact studies using RCTs (see Goldstein/ACF testimony)

d. <u>Establish an interagency evaluation coordination structure</u> (see Goldstein/ACF testimony)

e. <u>Make the Federal evaluation system a complement and counterpart to the Federal statistical system rather than subsumed by the latter</u> (see Goldstein/ACF testimony)

f. <u>Strengthen and clarify privacy/confidentiality protections that also allow access for Federal evaluations</u> by clarifying statutory provisions in the Privacy Act, Freedom of Information Act, and the Family Educational Rights and Privacy Act (see O'Regan/HUD testimony)

3. ISSUE: Often there is no or *inadequate funding* available to conduct rigorous evaluations

   SOLUTION: Ensure adequate evaluation funding
   a. <u>Expand flexible evaluation funding set-aside authority</u> to more agencies to allow funding for program evaluations
   b. <u>Embed evaluation funding and requirements</u> into programs when possible
   c. <u>Increase cross-agency transfer authority to allow combining funding</u> for evaluations that span multiple programs/agencies when appropriate (see Solution 1.b. above).

4. ISSUE: A number of *bureaucratic barriers* discourage evaluation, create inefficiencies and pose additional costs when conducting a Federal evaluation, particularly issues related to PRA, IAAs, and procurement.

   SOLUTION: Reduce bureaucratic complexity and barriers to evaluation
   a. <u>Streamline PRA requirements for Federal evaluations to minimize cost and time</u>:
      i. Assign PRA responsibility to agencies on collections below some threshold such as 1,000 responses or under 500 burden hours (see O'Regan/HUD testimony)

        ii.   Allow PRA responsibility to be assigned to agency evaluation offices that have established formal clearance, peer/technical review, statistical expertise, and public notice procedures

      iii.   Reduce requirements for public comment periods in some cases, e.g. no second public comment period if there are no substantive comments during the first period.

  b. Streamline the Federal Interagency Agreement (IAA) processes to allow more efficient collaboration and sharing of funds for cross-agency evaluations and data exchanges:

      i.   Use pre-approved agreement templates for expedited clearance in Federal agencies

      ii.   Standardize the legal procedures and requirements across Departments to facilitate and speed up interagency agreements.

  c. Allow more flexible procurement strategies for evaluations to improve study quality and efficiency (see 2017 President's Budget)

      i.   Allow Federal agencies a five year period of funds availability to allow agencies to pool funds over multiple years to pay for large, long-term evaluations.

      ii.   Provide Federal evaluation agencies with the authority to recapture, and re-obligate for other studies, unused funds not needed to complete a particular study (e.g., unused termination costs, or cost savings from projects that proceed more quickly than expected).

5. Each agency has unique data requirements for program evaluations. Below are examples of specific solutions that relate to evaluations using employment, wages, tax, research projects, health, and education data):

  a. Allow access to the National Directory of New Hires (NDNH) employment and earnings data for Federal evaluations (see FY 2017 President's Budget pp. 303-307, 328-330: https://www.acf.hhs.gov/sites/default/files/olab/final_cj_2017_print.pdf), and maintain the records for longer periods of time to allow for long-term follow-up.

  b. Allow administrative data with unique identification and collected in workforce development, education, research grants, public housing, social services and public assistance programs to be linked at the individual level and shared among Federal agencies for evaluations (with appropriate security and privacy protections). (For WIOA example see President's Budget Fiscal Year 2016: Analytical Perspectives, pp. 69-70: https://www.whitehouse.gov/sites/default/files/omb/budget/fy2016/assets/spec.pdf).

  c. Improve Federal agency access to the Longitudinal Employer and Household Dynamics (LEHD) files for evaluations.

  d. Improve access to individual level student-level data (e.g., K-12 and post-secondary) for Federal evaluations (with appropriate security and privacy protections) (see testimony of multiple witnesses at October public hearing).

      e.   <u>Improve the ability of the vital statistics systems to be more interoperable</u>
with other electronic healthy data systems and foster the use of national
standards on birth and death statistics to support interoperability for
evaluation and research.

We would be happy to discuss any of these issues or solutions. Please feel free to contact any of
the following:

DOL - Molly Irwin Irwin.Molly.E.@dol.gov or Demetra Nightingale
Nightingale.Demetr@dol.gov

HHS - Naomi Goldstein naomi.goldstein@acf.hhs.govHUD –

Katherine O'Regan Katherine.M.ORegan@hud.gov or Mark Shroder, HUD
Mark.D.Shroder@hud.gov

USDA-FNS – Richard Lucas Richard.Lucas@fns.usda.gov

DOJ – Howard Spivak Howard.Spivak@usdoj.gov

NSF – Anand Desai adesai@nsf.gov

STATEWORK**FORCE**
AGENCIES
NATIONAL ASSOCIATION OF

May 2, 2016

President Barack Obama
The White House
1600 Pennsylvania Avenue
Washington, DC 20500

The Honorable Paul Ryan
Speaker of the House
H-232 The Capitol
Washington, DC 20515

The Honorable Nancy Pelosi
Minority Leader of the House
233 Canon H.O.B.
Washington, DC 20515

The Honorable Mitch McConnell
Senate Majority Leader
317 Russell Senate Office Building
Washington, DC 20510

The Honorable Harry Reid
Senate Minority Leader
522 Hart Senate Office Building
Washington, DC 20510

Dear Mr. President, Mr. Speaker, Congresswoman Pelosi, Senator McConnell and Senator Reid;

On behalf of the National Association of State Workforce Agencies (NASWA), we support the newly established Commission on Evidence Based Policy Making from Public Law 114-140 (H.R. 1831), but believe there is a perspective missing. We respectfully request your consideration for state administrators of the public workforce system to either participate and/or be utilized by the Commission.

States are a crucial partner of the federal government in funding and administering public workforce programs, and have important responsibilities safeguarding data and developing solutions to integrate and share data. The recently enacted Workforce Innovation and Opportunity Act (WIOA) highlights and elevates these responsibilities, requiring states to develop integrated data systems across a range of workforce development, education and human services programs. The Commission's goals to find the best way to organize, protect and analyze data to improve public policy can better be accomplished with the involvement and expertise of state partners.

Additionally, states have a rich history innovating in these areas and working with federal partners to test new approaches using rigorous designs. The resulting evidence has been critical to policy development. In the workforce development area alone, states have helped build a twenty-five year history of evidence on the value of reemployment services for UI claimants. While funding for states to analyze data and conduct evaluations has dwindled, state interest remains strong, more should be done, and the federal government cannot move forward alone.

We look forward to your consideration of utilizing the state administrators of the public workforce system and supporting the Commission's mission.

Sincerely,

Dale Peinecke, Commissioner
Washington State Employment Security Department
NASWA Board President

Scott B. Sanders, Executive Director
NASWA

NASWA is a national organization of state administrators of the publicly-funded state workforce system, including the Workforce Innovation and Opportunity Act (WIOA), employment services, training programs, unemployment insurance, employment statistics and labor market information. NASWA's goal is to drive the national workforce agenda by providing policy expertise on workforce development, including unemployment insurance issues that support transition to new jobs and careers.

Comments Submitted to the Federal Register

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0003
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

This is a comment in response to overarching question #1:

One way systematic evidence developed with government data can be deployed to improve policy choices is through the federal budget process. Paul Posner and I have proposed a change in that process that would make room each year for deeper, evidence-based, systemic analysis of a handful of major national policy objectives. For each objective, this alternative, goal-focused "portfolio budgeting" approach would group together and thus look broadly across the set of related programs, tax provisions, regulatory, and other federal policies affecting the goal. The relevant policy portfolio would typically cut across agency boundaries and congressional committee jurisdictions. For the goal of expanding access to higher education, for example, it would include loans and grants administered by the Department of Education, GI Bill benefits for veterans, and various tax provisions that support savings for college and charitable giving to college endowments used for scholarships.

For each goal, analysis would assess how current federal strategy for using resources -

implied by the current portfolio of spending, tax expenditures, and other policies - incentives and shapes the behavior of other actors in the system. Combining data from multiple federal administrative data bases would facilitate evaluation of the interactive and combined effects of federal policies. Analysis would compare the effectiveness of today's federal strategy with alternative strategies that could make better use of resources to accelerate progress toward the goal and possibly generate budget savings. Through the budget process, potential budget savings could either be reinvested in this goal or used for other priorities, including deficit reduction.

The process now used to develop the federal budget is biased toward the incremental, the short term, and the familiar. It also is piecemeal and fragmented, considering issues in narrow programmatic categories and giving most scrutiny to marginal changes in spending, largely ignoring tax policies. The way budgets are developed is too often blind to the major shifts sweeping over the nation's economy and social structure. The result is little change and inadequate focus on national priorities or how to achieve them more efficiently. That is why a portfolio approach is needed.

Building on growing executive branch experience with strategic analysis and reviews, portfolio budgeting would use policy makers' time more efficiently by helping them focus on the biggest opportunities to adjust policies and resources to accelerate the achievement of major national goals and identifying breakthrough gains in productive use of resources. For Congress, the House and Senate budget committees could organize the process by annually identifying a small set of major policy goals for analysis; asking GAO, CBO, or the congressionally chartered national academies to assess current strategy relative to alternatives; and in their subsequent budget resolutions, developed in consultation with congressional leaders, other committees, and the Administration, include policy guidance and estimates for an alternative that would use budget resources more productively.

More details on implementing a portfolio budgeting approach can be found at http://www.brookings.edu/research/papers/2015/09/30-portfolio-budgeting-new-approach-redburn-posner and in the National Budgeting Roundtable working paper on budgeting for national goals at http://psc.gmu.edu/wp-content/uploads/New-Ideas-for-Federal-Budget-Working-Paper-No.-2.pdf .

Steve Redburn
Professorial Lecturer, Trachtenberg School of Public Policy and Public Administration, George Washington University and
Director of fiscal studies, Centers on the Public Service, Schar School of Policy and Government, George Mason University,
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PUBLIC SUBMISSION

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

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Comment on FR Doc # 2016-22002

Submitter Information

Name: Jeremy Ayers
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    Washington, DC, 20036
Email: jeremy@results4america.org

General Comment

Response to Request for Comments for the Evidence-Based Policymaking Commission
Docket ID USBC-2016-0003

To Whom It May Concern:

Please find attached a response to your request for public comment for the Evidence-Based Policymaking Commission from Results from America and members of our Invest in What Works coalition. These recommendations are in response to Questions 3, 4, 15, 16, and 19 found in the Notice Document soliciting public comment. Thank you in advance for considering these recommendations.

Jeremy Ayers
Vice President, Policy
Results for America

Attachments

Coalition Letter 9.27.16

Commission on Evidence-Based Policymaking Comments: Docket ID USBC-2016-0003

Response to Request for Comments for the Evidence-Based Policymaking Commission
Docket ID USBC-2016-0003

Name of Institution:	Results for America and Invest in What Works Coalition Members
Address of Institution:	1875 Connecticut Avenue, NW
	11th Floor
	Washington, DC 20036
Contact Person:	Jeremy Ayers
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Commission on Evidence-Based Policymaking Comments: Docket ID USBC-2016-0003

September 27, 2016

Dr. Katharine G. Abraham, Chair
Mr. Ron Haskins, Co-Chair
Evidence-Based Policymaking Commission
U.S. Census Bureau
4600 Silver Hill Road
Suitland, MD 20746

Dear Chairwoman Abraham and Co-Chairman Haskins,

We are writing to encourage you to consider the attached policy recommendations as a response to your request for public comment. **These recommendations address Questions 3, 4, 15, 16, and 19 in the Notice Document requesting public comments**.

We believe that the Commission can help invest taxpayer dollars in what works by assisting policymakers at all levels of government in:

- Building evidence about the practices, policies and programs that will achieve the most effective and efficient results so that policymakers can make better decisions;
- Investing limited taxpayer dollars in practices, policies and programs that use data, evidence and evaluation to demonstrate they work; and
- Directing funds away from practices, policies, and programs that consistently fail to achieve measurable outcomes.

Although the Evidence-Based Policymaking Commission Act of 2016 directs the Commission to study and report on several important topics including data privacy and data sharing, our attached policy proposals focus on the provision that directs the Commission to "make recommendations on how best to incorporate outcomes measurement, institutionalize randomized controlled trials, and rigorous impact analysis into program design."

We thank you in advance for your consideration of our recommendations.

Sincerely,

Actionable Intelligence for Social Policy (AISP)
America Forward
Center for Employment Opportunities
Center for Research and Reform in Education, Johns Hopkins University
KIPP
REDF
Results for America
Sorenson Center for Impact
Success for All Foundation
Sunlight Foundation

cc: Members of the Evidence-Based Policymaking Commission

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Commission on Evidence-Based Policymaking Comments: Docket ID USBC-2016-0003

INVEST IN WHAT WORKS COALITION RECOMMENDATIONS ADDRESSING QUESTIONS 3, 4, 15, 16, AND 19

Data Collection

- **Federal Data Infrastructure**: The Commission should consider recommending that Congress and the Administration provide sufficient funding to help the U.S. Census Bureau accelerate the process of acquiring key administrative data-sets from local, state, and federal agencies, and strengthen its infrastructure for processing, standardizing, linking, and making data available to other government agencies and independent researchers via data use agreements with strong privacy protections. As part of this effort, the Census Bureau should develop an inventory of data-sets at the local, state, and federal levels and make this inventory accessible to government agencies and independent researchers.

- **Federal Data Inventories**: The Commission should consider recommending that Congress and the Administration codify into law what is already required by the May 2013 Executive Order by passing the OPEN Government Data Act. This legislation would mandate that every federal agency create an enterprise data inventory of all data sets held by the agency and make these lists public in machine-readable formats with strong privacy protections.

- **Federal Data Information Technology:** The Commission should consider recommending that Congress and the Administration provide sufficient funding to allow every federal agency to update and modernize its IT infrastructure that supports data collection, analysis, sharing, and usage so that data can be appropriately structured, protected, analyzed and disclosed in line with the updated information policy of the United States. A 2016 report by the U.S. General Accountability Office highlighted the urgent need for the U.S. government to modernize its aging legacy systems.

- **Workforce Data**: The Commission should recommend that Congress and the Administration allow the linking of workforce datasets (including but not limited to state and federal unemployment insurance and new hires data sets) to improve the effectiveness and efficiency of publicly-supported workforce development programs, as long as the linking is consistent with strong privacy protections. For example, many states cannot determine the impact of their job training programs without the ability to link their participant information with information about wage earnings across multiple states where participants obtain employment.

- **State Education and Workforce Data Systems**: The Commission should recommend that Congress and the Administration support the enhancement of the existing State Longitudinal Data Systems (SLDS) program administered by the U.S. Department of Education, which helps states integrate education and workforce data, and the proposed expansion of the Workforce Data Quality Initiative that would help build state and local capacity to track employment and educational outcomes of Workforce Innovation and Opportunity Act program participants, including those with disabilities, and provide information about job success rates and training programs.

Commission on Evidence-Based Policymaking Comments: Docket ID USBC-2016-0003

- **Federal Education Data Identifiers**: The Commission should consider recommending that Congress and the Administration direct federal agencies to standardize the way they collect and share student-level identifiers (e.g., de-identified but encrypted) so that researchers can more effectively evaluate publicly-supported education and workforce development programs. This information should be housed in one federal agency in order to promote appropriate sharing and usage of this standardized data.

- **Federal Programmatic Data:** The Commission should consider recommending that Congress and the Administration authorize every federal agency to set aside 1% of their program funds for program evaluations that generate programmatic outcomes data that can help make federal programs more effective and efficient.

Data Analysis

- **Data Leadership and Infrastructure**: The Commission should consider recommending that Congress and the Administration direct every federal agency to have a senior staff member (i.e., Chief Evaluation Officer or equivalent position) with the authority, staff, and budget to develop important programmatic data through the evaluation of its major programs and to use this programmatic data and available administrative data to inform the agency's policies and improve its programs.

Data Sharing

- **Local and State Data Systems**: The Commission should consider recommending that Congress and the Administration clarify that local and state agencies can invest federal program funds in strengthening their data infrastructures for processing, standardizing, linking, and making data available to other government agencies and independent researchers via data use agreements with strong privacy protections.

- **Federal Education Data Infrastructure:** The Commission should consider recommending that Congress and the Administration strengthen the U.S. Department of Education's (ED's) data infrastructure, including the hiring and training of key analytic staff, to manage the collection, quality, release, and analysis of education data with strong privacy protections and the support the proposed InformED initiative that would pull together ED's diverse array of data and studies on a particular topic, and allow open data access to help unlock answers to pressing education questions and needs.

Data Usage

- "**What Works" Clearinghouses:** The Commission should consider recommending that Congress and the Administration direct every federal agency to develop a "What Works" clearinghouse or evidence exchange with the purpose of making evaluation reports available to the public.

- **Performance Management/Continuous Improvement:** The Commission should consider recommending that Congress and the Administration direct every federal agency to develop

Commission on Evidence-Based Policymaking Comments: Docket ID USBC-2016-0003

and operate a performance management system with clear and prioritized outcome-focused goals and aligned program objectives and that frequently collects, analyzes, and uses administrative and programmatic outcomes data to improve outcomes, return on investment, and other dimensions of performance.

- **Federal Grant Programs**: The Commission should consider recommending that Congress and the Administration direct every federal agency to use evidence of effectiveness, including impact analysis and other outcomes measurements based on high-quality administrative and programmatic outcomes data, when allocating funds from its 5 largest competitive and non-competitive grant programs.

- **Evaluation and Research**: The Commission should consider recommending that Congress and the Administration direct every federal agency to have an evaluation policy, evaluation plan, and research/learning agenda which ensures that the agency has an intentional approach to the collection, analysis, sharing, and usage of administrative and programmatic data and publicly release the findings of all completed evaluations to improve the effectiveness and efficiency of federal programs.

- **Repurpose for Results**: The Commission should consider recommending that Congress and the Administration direct every federal agency to use its administrative and programmatic data to determine when to shift funds away from practices, policies, and programs which consistently fail to achieve desired outcomes and toward evidence-based, results-driven solutions.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0005
Comment on FR Doc # 2016-22002

Submitter Information

Name: Karl Jaensch

General Comment

More detailed data about individuals (the sort of information that is vulnerable to privacy violations) and efforts to attain 100 percent data collection does not lead to better decision-making and is a waste of effort and money.

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Request for Comments for the Commission on Evidence-Based Policymaking

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Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0006
Comment on FR Doc # 2016-22002

Submitter Information

Name: Sander Greenland

General Comment

From: Sander Greenland
Sent: Thursday, October 6, 2016 10:56 PM
To: Nicholas Hart; A Reamer
Subject: Response to Request for Comments for the Commission on Evidence-Based Policymaking

Dear Drs. Hart and Reamer,

In response to the request and the posting in ASA Connect, the attached articles (The ASA Statement on statistical significance and P-values, and supplementary article on misinterpretations) may be of interest,
especially regarding question 16 (How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?).
The material may be of particular import given the large number of articles in health and medicine whose published conclusions are based on elementary misinterpretations of their own statistical outputs.

The attachments are published with open access and may be distributed non-commercially.

Best Regards,
Sander Greenland

Attachments

Greenland Senn Rothman Carlin Poole Goodman Altman.Testing CI misinterpretation.TAS 2016

Wasserstein Lazar.ASA Statement on P-values.7-2016

Statistical Tests, P-values, Confidence Intervals, and Power: A Guide to Misinterpretations

Sander GREENLAND, Stephen J. SENN, Kenneth J. ROTHMAN, John B. CARLIN, Charles POOLE, Steven N. GOODMAN, and Douglas G. ALTMAN

Misinterpretation and abuse of statistical tests, confidence intervals, and statistical power have been decried for decades, yet remain rampant. A key problem is that there are no interpretations of these concepts that are at once simple, intuitive, correct, and foolproof. Instead, correct use and interpretation of these statistics requires an attention to detail which seems to tax the patience of working scientists. This high cognitive demand has led to an epidemic of shortcut definitions and interpretations that are simply wrong, sometimes disastrously so—and yet these misinterpretations dominate much of the scientific literature.

In light of this problem, we provide definitions and a discussion of basic statistics that are more general and critical than typically found in traditional introductory expositions. Our goal is to provide a resource for instructors, researchers, and consumers of statistics whose knowledge of statistical theory and technique may be limited but who wish to avoid and spot misinterpretations. We emphasize how violation of often unstated analysis protocols (such as selecting analyses for presentation based on the P-values they produce) can lead to small P-values even if the declared test hypothesis is correct, and can lead to large P-values even if that hypothesis is incorrect. We then provide an explanatory list of 25 misinterpretations of P-values, confidence intervals, and power. We conclude with guidelines for improving statistical interpretation and reporting.

KEY WORDS: Confidence intervals; Hypothesis testing; Null testing; P-value; Power; Significance tests; Statistical testing.

Introduction

Misinterpretation and abuse of statistical tests has been decried for decades, yet remains so rampant that some scientific journals discourage use of "statistical significance" (classifying results as "significant" or not based on a P-value) (Lang et al. 1998). One journal now bans all statistical tests and mathematically related procedures such as confidence intervals (Trafimow and Marks 2015), which has led to considerable discussion and debate about the merits of such bans (e.g., Ashworth 2015; Flanagan 2015).

Despite such bans, we expect that the statistical methods at issue will be with us for many years to come. We thus think it imperative that basic teaching as well as general understanding of these methods be improved. Toward that end, we attempt to explain the meaning of significance tests, confidence intervals, and statistical power in a more general and critical way than is traditionally done, and then review 25 common misconceptions in light of our explanations. We also discuss a few more subtle but nonetheless pervasive problems, explaining why it is important to examine and synthesize all results relating to a scientific question, rather than focus on individual findings. We further explain why statistical tests should never constitute the sole input to inferences or decisions about associations or effects. Among the many reasons are that, in most scientific settings, the arbitrary classification of results into "significant" and "nonsignificant" is unnecessary for and often damaging to valid interpretation of data; and that estimation of the size of effects and the uncertainty surrounding our estimates will be far more important for scientific inference and sound judgment than any such classification.

More detailed discussion of the general issues can be found in many articles, chapters, and books on statistical methods and their interpretation (e.g., Altman et al. 2000; Atkins and Jarrett 1979; Cox 1977, 1982; Cox and Hinkley 1974; Freedman et al. 2007; Gibbons and Pratt 1975; Gigerenzer et al. 1990, Ch. 3; Harlow et al. 1997; Hogben 1957; Kaye and Freedman 2011; Morrison and Henkel 1970; Oakes 1986; Pratt 1965; Rothman et al. 2008, Ch. 10; Ware et al. 2009; Ziliak and McCloskey 2008). Specific issues are covered at length in these sources and in the many peer-reviewed articles that critique common misinterpretations of null-hypothesis testing and "statistical significance" (e.g., Altman and Bland 1995; Anscombe 1990; Bakan 1966; Bandt and Boen 1972; Berkson 1942; Bland and Altman 2015; Chia 1997; Cohen 1994; Evans et al. 1988; Fidler and Loftus 2009; Gardner and Altman 1986; Gelman 2013; Gelman and Loken 2014; Gelman and Stern 2006; Gigerenzer 2004;

Gigerenzer and Marewski 2015; Goodman 1992, 1993, 1999, 2008; Greenland 2011, 2012ab; Greenland and Poole, 2011, 2013ab; Grieve 2015; Harlow et al. 1997; Hoekstra et al. 2006; Hurlbert and Lombardi 2009; Kaye 1986; Lambdin 2012; Lang et al. 1998; Langman 1986; LeCoutre et al. 2003; Lew 2012; Loftus 1996; Matthews and Altman 1996a; Pocock and Ware 2009; Pocock et al. 1987; Poole 1987ab, 2001; Rosnow and Rosenthal 1989; Rothman 1978, 1986; Rozeboom 1960; Salsburg 1985; Schmidt 1996; Schmidt and Hunter 2002; Sterne and Davey Smith 2001; Thompson 1987; Thompson 2004; Wagenmakers 2007; Walker 1986; Wood et al. 2014).

Statistical Tests, *P*-values, and Confidence Intervals: A Caustic Primer

Statistical Models, Hypotheses, and Tests

Every method of statistical inference depends on a complex web of assumptions about how data were collected and analyzed, and how the analysis results were selected for presentation. The full set of assumptions is embodied in a *statistical model* that underpins the method. This model is a mathematical representation of data variability, and thus ideally would capture accurately all sources of such variability. Many problems arise, however, because this statistical model often incorporates unrealistic or at best unjustified assumptions. This is true even for so-called "nonparametric" methods, which (like other methods) depend on assumptions of random sampling or randomization. These assumptions are often deceptively simple to write mathematically, yet in practice are difficult to satisfy and verify, as they may depend on successful completion of a long sequence of actions (such as identifying, contacting, obtaining consent from, obtaining cooperation of, and following up subjects, as well as adherence to study protocols for treatment allocation, masking, and data analysis).

There is also a serious problem of defining the scope of a model, in that it should allow not only for a good representation of the observed data but also of hypothetical alternative data that might have been observed. The reference frame for data that "might have been observed" is often unclear, for example if multiple outcome measures or multiple predictive factors have been measured, and many decisions surrounding analysis choices have been made after the data were collected—as is invariably the case (Gelman and Loken 2014).

The difficulty of understanding and assessing underlying assumptions is exacerbated by the fact that the statistical model is usually presented in a highly compressed and abstract form—if presented at all. As a result, many assumptions go unremarked and are often unrecognized by users as well as consumers of statistics. Nonetheless, all statistical methods and interpretations are premised on the model assumptions; that is, on an assumption that the model provides a valid representation of the variation we would expect to see across data sets, faithfully reflecting the circumstances surrounding the study and phenomena occurring within it.

In most applications of statistical testing, one assumption in the model is a hypothesis that a particular effect has a specific size, and has been targeted for statistical analysis. (For sim-

plicity, we use the word "effect" when "association or effect" would arguably be better in allowing for noncausal studies such as most surveys.) This targeted assumption is called the study hypothesis or *test hypothesis*, and the statistical methods used to evaluate it are called *statistical hypothesis tests*. Most often, the targeted effect size is a "null" value representing *zero* effect (e.g., that the study treatment makes no difference in average outcome), in which case the test hypothesis is called the *null hypothesis*. Nonetheless, it is also possible to test other effect sizes. We may also test hypotheses that the effect does or does not fall within a specific range; for example, we may test the hypothesis that the effect is no greater than a particular amount, in which case the hypothesis is said to be a *one-sided* or *dividing* hypothesis (Cox 1977, 1982).

Much statistical teaching and practice has developed a strong (and unhealthy) focus on the idea that the main aim of a study should be to test null hypotheses. In fact most descriptions of statistical testing focus *only* on testing null hypotheses, and the entire topic has been called "Null Hypothesis Significance Testing" (NHST). This exclusive focus on null hypotheses contributes to misunderstanding of tests. Adding to the misunderstanding is that many authors (including R.A. Fisher) use "null hypothesis" to refer to any test hypothesis, even though this usage is at odds with other authors and with ordinary English definitions of "null"—as are statistical usages of "significance" and "confidence."

Uncertainty, Probability, and Statistical Significance

A more refined goal of statistical analysis is to provide an evaluation of certainty or uncertainty regarding the size of an effect. It is natural to express such certainty in terms of "probabilities" of hypotheses. In conventional statistical methods, however, "probability" refers not to hypotheses, but to quantities that are hypothetical frequencies of data patterns under an assumed statistical model. These methods are thus called *frequentist* methods, and the hypothetical frequencies they predict are called "frequency probabilities." Despite considerable training to the contrary, many statistically educated scientists revert to the habit of misinterpreting these frequency probabilities as hypothesis probabilities. (Even more confusingly, the term "likelihood of a parameter value" is reserved by statisticians to refer to the probability of the observed data *given* the parameter value; it does not refer to a probability of the parameter taking on the given value.)

Nowhere are these problems more rampant than in applications of a hypothetical frequency called the *P-value*, also known as the "observed significance level" for the test hypothesis. Statistical "significance tests" based on this concept have been a central part of statistical analyses for centuries (Stigler 1986). The focus of traditional definitions of *P*-values and statistical significance has been on null hypotheses, treating all other assumptions used to compute the *P*-value as if they were known to be correct. Recognizing that these other assumptions are often questionable if not unwarranted, we will adopt a more general view of the *P*-value as a statistical summary of the compatibility between the observed data and what we would predict or expect to see if we knew the entire statistical model (*all* the

assumptions used to compute the P-value) were correct.

Specifically, the distance between the data and the model prediction is measured using a *test statistic* (such as a t-statistic or a chi-squared statistic). The P-value is then the probability that the chosen test statistic would have been *at least* as large as its observed value if *every* model assumption were correct, including the test hypothesis. This definition embodies a crucial point lost in traditional definitions: In logical terms, the P-value tests *all* the assumptions about how the data were generated (the entire model), not just the targeted hypothesis it is supposed to test (such as a null hypothesis). Furthermore, these assumptions include far more than what are traditionally presented as modeling or probability assumptions—they include assumptions about the conduct of the analysis, for example that intermediate analysis results were not used to determine which analyses would be presented.

It is true that the smaller the P-value, the more unusual the data would be *if* every single assumption were correct; but a very small P-value does *not* tell us which assumption is incorrect. For example, the P-value may be very small because the targeted hypothesis is false; but it may instead (or in addition) be very small because the study protocols were violated, or because it was selected for presentation based on its small size. Conversely, a large P-value indicates only that the data are not unusual under the model, but does not imply that the model or any aspect of it (such as the targeted hypothesis) is correct; it may instead (or in addition) be large because (again) the study protocols were violated, or because it was selected for presentation based on its large size.

The general definition of a P-value may help one to understand why statistical tests tell us much less than what many think they do: Not only does a P-value *not* tell us whether the hypothesis targeted for testing is true or not; it says nothing specifically related to that hypothesis unless we can be completely assured that every other assumption used for its computation is correct—an assurance that is lacking in far too many studies.

Nonetheless, the P-value can be viewed as a continuous measure of the compatibility between the data and the entire model used to compute it, ranging from 0 for complete incompatibility to 1 for perfect compatibility, and in this sense may be viewed as measuring the fit of the model to the data. Too often, however, the P-value is degraded into a dichotomy in which results are declared "statistically significant" if P falls on or below a cut-off (usually 0.05) and declared "nonsignificant" otherwise. The terms "significance level" and "alpha level" (α) are often used to refer to the cut-off; however, the term "significance level" invites confusion of the cut-off with the P-value itself. Their difference is profound: the cut-off value α is supposed to be fixed in advance and is thus part of the study design, unchanged in light of the data. In contrast, the P-value is a number computed from the data and thus an analysis result, unknown until it is computed.

Moving From Tests to Estimates

We can vary the test hypothesis while leaving other assumptions unchanged, to see how the P-value differs across competing test hypotheses. Usually, these test hypotheses specify dif-

ferent sizes for a targeted effect; for example, we may test the hypothesis that the average difference between two treatment groups is zero (the null hypothesis), or that it is 20 or –10 or any size of interest. The effect size whose test produced $P = 1$ is the size most compatible with the data (in the sense of predicting what was in fact observed) *if* all the other assumptions used in the test (the statistical model) were correct, and provides a *point estimate* of the effect under those assumptions. The effect sizes whose test produced $P > 0.05$ will typically define a range of sizes (e.g., from 11.0 to 19.5) that would be considered more compatible with the data (in the sense of the observations being closer to what the model predicted) than sizes outside the range—again, if the statistical model were correct. This range corresponds to a $1 - 0.05 = 0.95$ or 95% *confidence interval*, and provides a convenient way of summarizing the results of hypothesis tests for many effect sizes. Confidence intervals are examples of *interval estimates*.

Neyman (1937) proposed the construction of confidence intervals in this way because they have the following property: If one calculates, say, 95% confidence intervals repeatedly *in valid applications*, 95% of them, on average, will contain (i.e., include or cover) the true effect size. Hence, the specified confidence level is called the *coverage probability*. As Neyman stressed repeatedly, this coverage probability is a property of a long sequence of confidence intervals computed from valid models, rather than a property of any single confidence interval.

Many journals now require confidence intervals, but most textbooks and studies discuss P-values only for the null hypothesis of no effect. This exclusive focus on null hypotheses in testing not only contributes to misunderstanding of tests and underappreciation of estimation, but also obscures the close relationship between P-values and confidence intervals, as well as the weaknesses they share.

What P-values, Confidence Intervals, and Power Calculations Don't Tell Us

Much distortion arises from basic misunderstanding of what P-values and their relatives (such as confidence intervals) do *not* tell us. Therefore, based on the articles in our reference list, we review prevalent P-value misinterpretations as a way of moving toward defensible interpretations and presentations. We adopt the format of Goodman (2008) in providing a list of misinterpretations that can be used to critically evaluate conclusions offered by research reports and reviews. Every one of the italicized statements in our list has contributed to statistical distortion of the scientific literature, and we add the emphatic "No!" to underscore statements that are not only fallacious but also not "true enough for practical purposes."

Common Misinterpretations of Single P-values

1. The P-value is the probability that the test hypothesis is true; for example, if a test of the null hypothesis gave $P = 0.01$, the null hypothesis has only a 1% chance of being true; if instead it gave $P = 0.40$, the null hypothesis has a 40% chance of being true.—No! The P-value *assumes* the test hypothesis is true—it is *not* a hypothesis probability and may be far from any

reasonable probability for the test hypothesis. The P-value simply indicates the degree to which the data conform to the pattern predicted by the test hypothesis and all the other assumptions used in the test (the underlying statistical model). Thus $P = 0.01$ would indicate that the data are not very close to what the statistical model (including the test hypothesis) predicted they should be, while $P = 0.40$ would indicate that the data are much closer to the model prediction, allowing for chance variation.

2. The P-value for the null hypothesis is the probability that chance alone produced the observed association; for example, if the P-value for the null hypothesis is 0.08, there is an 8% probability that chance alone produced the association.—No! This is a common variation of the first fallacy and it is just as false. To say that chance *alone* produced the observed association is logically equivalent to asserting that every assumption used to compute the P-value is correct, *including the null hypothesis*. Thus to claim that the null P-value is the probability that chance alone produced the observed association is completely backwards: The P-value is a probability computed *assuming* chance was operating alone. The absurdity of the common backwards interpretation might be appreciated by pondering how the P-value, which is a probability deduced *from* a set of assumptions (the statistical model), can possibly refer to the probability *of* those assumptions.

Note: One often sees "alone" dropped from this description (becoming "the P-value for the null hypothesis is the probability that chance produced the observed association"), so that the statement is more ambiguous, but just as wrong.

3. A significant test result (P ≤ 0.05) means that the test hypothesis is false or should be rejected.—No! A small P-value simply flags the data as being unusual if all the assumptions used to compute it (including the test hypothesis) were correct; it may be small because there was a large random error or because some assumption other than the test hypothesis was violated (for example, the assumption that this P-value was not selected for presentation because it was below 0.05). $P \leq 0.05$ only means that a discrepancy from the hypothesis prediction (e.g., no difference between treatment groups) would be as large *or larger than* that observed no more than 5% of the time if *only* chance were creating the discrepancy (as opposed to a violation of the test hypothesis or a mistaken assumption).

4. A nonsignificant test result (P > 0.05) means that the test hypothesis is true or should be accepted.—No! A large P-value only suggests that the data are *not* unusual if all the assumptions used to compute the P-value (including the test hypothesis) were correct. The same data would also not be unusual under many other hypotheses. Furthermore, even if the test hypothesis is wrong, the P-value may be large because it was inflated by a large random error or because of some other erroneous assumption (e.g., the assumption that this P-value was not selected for presentation because it was above 0.05). $P > 0.05$ only means that a discrepancy from the hypothesis prediction (e.g., no difference between treatment groups) would be as large *or larger* than that observed more than 5% of the time if *only* chance were creating the discrepancy.

5. A large P-value is evidence in favor of the test hypothesis.—No! In fact, any P-value less than 1 implies that the test hypothesis is *not* the hypothesis most compatible with the data, because any other hypothesis with a larger P-value would be even more compatible with the data. A P-value cannot be said to favor the test hypothesis except in relation to those hypotheses with smaller P-values. Furthermore, a large P-value often indicates only that the data are incapable of discriminating among many competing hypotheses (as would be seen immediately by examining the range of the confidence interval). For example, many authors will misinterpret $P = 0.70$ from a test of the null hypothesis as evidence for no effect, when in fact it indicates that, even though the null hypothesis is compatible with the data under the assumptions used to compute the P-value, it is *not* the hypothesis most compatible with the data—that honor would belong to a hypothesis with $P = 1$. But even if $P = 1$, there will be many other hypotheses that are highly consistent with the data, so that a definitive conclusion of "no association" cannot be deduced from a P-value, no matter how large.

6. A null-hypothesis P-value greater than 0.05 means that no effect was observed, or that absence of an effect was shown or demonstrated.—No! Observing $P > 0.05$ for the null hypothesis only means that the null is one among the many hypotheses that have $P > 0.05$. Thus, unless the point estimate (observed association) equals the null value exactly, it is a mistake to conclude from $P > 0.05$ that a study found "no association" or "no evidence" of an effect. If the null P-value is less than 1 some association must be present in the data, and one must look at the point estimate to determine the effect size most compatible with the data under the assumed model.

7. Statistical significance indicates a scientifically or substantively important relation has been detected.—No! Especially when a study is large, very minor effects or small assumption violations can lead to statistically significant tests of the null hypothesis. Again, a small null P-value simply flags the data as being unusual if all the assumptions used to compute it (including the null hypothesis) were correct; but the way the data are unusual might be of no clinical interest. One must look at the confidence interval to determine which effect sizes of scientific or other substantive (e.g., clinical) importance are relatively compatible with the data, given the model.

8. Lack of statistical significance indicates that the effect size is small.—No! Especially when a study is small, even large effects may be "drowned in noise" and thus fail to be detected as statistically significant by a statistical test. A large null P-value simply flags the data as *not* being unusual if all the assumptions used to compute it (including the test hypothesis) were correct; but the same data will also not be unusual under many other models and hypotheses besides the null. Again, one must look at the confidence interval to determine whether it includes effect sizes of importance.

4   Online Supplement to the ASA Statement on Statistical Significance and P-values

9. The P-value is the chance of our data occurring if the test hypothesis is true; for example, P = 0.05 means that the observed association would occur only 5% of the time under the test hypothesis.—No! The P-value refers not only to what we observed, but also observations *more extreme* than what we observed (where "extremity" is measured in a particular way). And again, the P-value refers to a data frequency when all the assumptions used to compute it are correct. In addition to the test hypothesis, these assumptions include randomness in sampling, treatment assignment, loss, and missingness, as well as an assumption that the P-value was not selected for presentation based on its size or some other aspect of the results.

10. If you reject the test hypothesis because P ≤ 0.05, the chance you are in error (the chance your "significant finding" is a false positive) is 5%.—No! To see why this description is false, suppose the test hypothesis is in fact true. Then, if you reject it, the chance you are in error is 100%, not 5%. The 5% refers only to how often you would reject it, and therefore be in error, over very many uses of the test across different studies when the test hypothesis and all other assumptions used for the test are true. It does not refer to your single use of the test, which may have been thrown off by assumption violations as well as random errors. This is yet another version of misinterpretation #1.

11. P = 0.05 and P ≤ 0.05 mean the same thing.—No! This is like saying reported height = 2 meters and reported height ≤ 2 meters are the same thing: "height = 2 meters" would include few people and those people would be considered tall, whereas "height ≤ 2 meters" would include most people including small children. Similarly, P = 0.05 would be considered a borderline result in terms of statistical significance, whereas P ≤ 0.05 lumps borderline results together with results very incompatible with the model (e.g., P = 0.0001) thus rendering its meaning vague, for no good purpose.

12. P-values are properly reported as inequalities (e.g., report "P < 0.02" when P = 0.015 or report P > 0.05 when P = 0.06 or P = 0.70).—No! This is bad practice because it makes it difficult or impossible for the reader to accurately interpret the statistical result. Only when the P-value is very small (e.g., under 0.001) does an inequality become justifiable: There is little practical difference among very small P-values when the assumptions used to compute P-values are not known with enough certainty to justify such precision, and most methods for computing P-values are not numerically accurate below a certain point.

13. Statistical significance is a property of the phenomenon being studied, and thus statistical tests detect significance.—No! This misinterpretation is promoted when researchers state that they have or have not found "evidence of" a statistically significant effect. The effect being tested either exists or does not exist. "Statistical significance" is a dichotomous description of a P-value (that it is below the chosen cut-off) and thus is a property of a result of a statistical test; it is not a property of the effect or population being studied.

14. One should always use two-sided P-values.—No! Two-sided P-values are designed to test hypotheses that the targeted effect measure equals a specific value (e.g., zero), and is neither above nor below this value. When however the test hypothesis of scientific or practical interest is a one-sided (dividing) hypothesis, a one-sided P-value is appropriate. For example, consider the practical question of whether a new drug is *at least* as good as the standard drug for increasing survival time. This question is one-sided, so testing this hypothesis calls for a one-sided P-value. Nonetheless, because two-sided P-values are the usual default, it will be important to note when and why a one-sided P-value is being used instead.

There are other interpretations of P values that are controversial, in that whether a categorical "No!" is warranted depends on one's philosophy of statistics and the precise meaning given to the terms involved. The disputed claims deserve recognition if one wishes to avoid such controversy.

For example, it has been argued that P-values overstate evidence against test hypotheses, based on directly comparing P-values against certain quantities (likelihood ratios and Bayes factors) that play a central role as evidence measures in Bayesian analysis (Edwards et al. 1963; Berger and Sellke 1987; Edwards 1992; Goodman and Royall 1988; Royall 1997; Sellke et al. 2001; Goodman 1992, 2005; Wagenmakers 2007). Nonetheless, many other statisticians do not accept these quantities as gold standards, and instead point out that P-values summarize crucial evidence needed to gauge the error rates of decisions based on statistical tests (even though they are far from sufficient for making those decisions). Thus, from this frequentist perspective, P-values do not overstate evidence and may even be considered as measuring one aspect of evidence (Cox 1977, 1982; Lehmann 1986; Senn 2001, 2002a; Mayo and Cox 2006), with 1 − P measuring evidence against the model used to compute the P-value. See also Murtaugh (2014) and its accompanying discussion.

Common Misinterpretations of P-Value Comparisons and Predictions

Some of the most severe distortions of the scientific literature produced by statistical testing involve erroneous comparison and synthesis of results from different studies or study subgroups. Among the worst are:

15. When the same hypothesis is tested in different studies and none or a minority of the tests are statistically significant (all P > 0.05), the overall evidence supports the hypothesis.—No! This belief is often used to claim that a literature supports no effect when the opposite is case. It reflects a tendency of researchers to "overestimate the power of most research" (Hedges and Olkin 1980). In reality, every study could fail to reach statistical significance and yet when combined show a statistically significant association and persuasive evidence of an effect. For example, if there were five studies each with P = 0.10, none would be significant at 0.05 level; but when these P-values are combined using the Fisher formula (Cox and Hinkley 1974, p. 80), the overall P-value would be 0.01. There are many real ex-

amples of persuasive evidence for important effects when few studies or even no study reported "statistically significant" associations (e.g., Chalmers and Lau 1996; Maheshwari et al. 2007). Thus, lack of statistical significance of individual studies should not be taken as implying that the totality of evidence supports no effect.

16. When the same hypothesis is tested in two different populations and the resulting P-values are on opposite sides of 0.05, the results are conflicting.—No! Statistical tests are sensitive to many differences between study populations that are irrelevant to whether their results are in agreement, such as the sizes of compared groups in each population. As a consequence, two studies may provide very different *P*-values for the same test hypothesis and yet be in perfect agreement (e.g., may show identical observed associations). For example, suppose we had two randomized trials A and B of a treatment, identical except that trial A had a known standard error of 2 for the mean difference between treatment groups whereas trial B had a known standard error of 1 for the difference. If both trials observed a difference between treatment groups of exactly 3, the usual normal test would produce $P = 0.13$ in A but $P = 0.003$ in B. Despite their difference in *P*-values, the test of the hypothesis of no difference in effect across studies would have $P = 1$, reflecting the perfect agreement of the observed mean differences from the studies. Differences between results must be evaluated by directly, for example by estimating and testing those differences to produce a confidence interval and a *P*-value comparing the results (often called analysis of heterogeneity, interaction, or modification).

17. When the same hypothesis is tested in two different populations and the same P-values are obtained, the results are in agreement.—No! Again, tests are sensitive to many differences between populations that are irrelevant to whether their results are in agreement. Two different studies may even exhibit identical *P*-values for testing the same hypothesis yet also exhibit clearly different observed associations. For example, suppose randomized experiment A observed a mean difference between treatment groups of 3.00 with standard error 1.00, while B observed a mean difference of 12.00 with standard error 4.00. Then the standard normal test would produce $P = 0.003$ in both; yet the test of the hypothesis of no difference in effect across studies gives $P = 0.03$, reflecting the large difference $(12.00 - 3.00 = 9.00)$ between the mean differences.

18. If one observes a small P-value, there is a good chance that the next study will produce a P-value at least as small for the same hypothesis.—No! This is false even under the ideal condition that both studies are independent and all assumptions including the test hypothesis are correct in both studies. In that case, if (say) one observes $P = 0.03$, the chance that the new study will show $P \leq 0.03$ is only 3%; thus the chance the new study will show a *P*-value as small or smaller (the "replication probability") is exactly the observed *P*-value! If on the other hand the small *P*-value arose solely because the true effect exactly equaled its observed estimate, there would be a 50% chance that a repeat experiment of identical design would have

a larger *P*-value (Goodman 1992). In general, the size of the new *P*-value will be extremely sensitive to the study size and the extent to which the test hypothesis or other assumptions are violated in the new study (Senn 2002a); in particular, *P* may be very small or very large depending on whether the study and the violations are large or small.

Finally, although it is (we hope obviously) wrong to do so, one sometimes sees the null hypothesis compared with another (alternative) hypothesis using a two-sided *P*-value for the null and a one-sided *P*-value for the alternative. This comparison is biased in favor of the null in that the two-sided test will falsely reject the null only half as often as the one-sided test will falsely reject the alternative (again, under all the assumptions used for testing).

Common Misinterpretations of Confidence Intervals

Most of the above misinterpretations translate into an analogous misinterpretation for confidence intervals. For example, another misinterpretation of $P > 0.05$ is that it means the test hypothesis has only a 5% chance of being false, which in terms of a confidence interval becomes the common fallacy:

19. The specific 95% confidence interval presented by a study has a 95% chance of containing the true effect size.—No! A reported confidence interval is a range between two numbers. The frequency with which an observed interval (e.g., 0.72 to 2.88) contains the true effect is either 100% if the true effect is within the interval or 0% if not; the 95% refers only to how often 95% confidence intervals computed from very many studies would contain the true size *if all the assumptions used to compute the intervals were correct*. It is possible to compute an interval that can be interpreted as having 95% probability of containing the true value; nonetheless, such computations require not only the assumptions used to compute the confidence interval, but also further assumptions about the size of effects in the model. These further assumptions are summarized in what is called a *prior distribution*, and the resulting intervals are usually called *Bayesian posterior (or credible) intervals* to distinguish them from confidence intervals (e.g., see Rothman et al. 2008, Ch. 13 and 18).

Symmetrically, the misinterpretation of a small *P*-value as disproving the test hypothesis could be translated into:

20. An effect size outside the 95% confidence interval has been refuted (or excluded) by the data.—No! As with the *P*-value, the confidence interval is computed from many assumptions, the violation of which may have led to the results. Thus it is the combination of the data with the assumptions, along with the arbitrary 95% criterion, that are needed to declare an effect size outside the interval is in some way incompatible with the observations. Even then, judgements as extreme as saying the effect size has been refuted or excluded will require even stronger conditions.

As with *P*-values, nave comparison of confidence intervals

can be highly misleading:

21. If two confidence intervals overlap, the difference between two estimates or studies is not significant.—No! The 95% confidence intervals from two subgroups or studies may overlap substantially and yet the test for difference between them may still produce $P < 0.05$. Suppose for example, two 95% confidence intervals for means from normal populations with known variances are (1.04, 4.96) and (4.16, 19.84); these intervals overlap, yet the test of the hypothesis of no difference in effect across studies gives $P = 0.03$. As with P-values, comparison between groups requires statistics that directly test and estimate the differences across groups. It can, however, be noted that if the two 95% confidence intervals fail to overlap, then when using the same assumptions used to compute the confidence intervals we will find $P < 0.05$ for the difference; and if one of the 95% intervals contains the point estimate from the other group or study, we will find $P > 0.05$ for the difference.

Finally, as with P-values, the replication properties of confidence intervals are usually misunderstood:

22. An observed 95% confidence interval predicts that 95% of the estimates from future studies will fall inside the observed interval.—No! This statement is wrong in several ways. Most importantly, under the model, 95% is the frequency with which *other unobserved* intervals will contain the *true effect*, not how frequently the one interval being presented will contain future estimates. In fact, even under ideal conditions the chance that a future estimate will fall within the current interval will usually be much less than 95%. For example, if two independent studies of the same quantity provide unbiased normal point estimates with the same standard errors, the chance that the 95% confidence interval for the first study contains the point estimate from the second is 83% (which is the chance that the difference between the two estimates is less than 1.96 standard errors). Again, an observed interval either does or does not contain the true effect; the 95% refers only to how often 95% confidence intervals computed from very many studies would contain the true effect if all the assumptions used to compute the intervals were correct.

23. If one 95% confidence interval includes the null value and another excludes that value, the interval excluding the null is the more precise one.—No! When the model is correct, precision of statistical estimation is measured directly by confidence interval *width* (measured on the appropriate scale). It is not a matter of inclusion or exclusion of the null or any other value. Consider two 95% confidence intervals for a difference in means, one with limits of 5 and 40, the other with limits of −5 and 10. The first interval excludes the null value of 0, but is 30 units wide. The second includes the null value, but is half as wide and therefore much more precise.

In addition to the above misinterpretations, 95% confidence intervals force the 0.05-level cutoff on the reader, lumping together all effect sizes with $P > 0.05$, and in this way are as bad as presenting P-values as dichotomies. Nonetheless, many

authors agree that confidence intervals are superior to tests and P-values because they allow one to shift focus away from the null hypothesis, toward the full range of effect sizes compatible with the data—a shift recommended by many authors and a growing number of journals. Another way to bring attention to nonnull hypotheses is to present their P-values; for example, one could provide or demand P-values for those effect sizes that are recognized as scientifically reasonable alternatives to the null.

As with P-values, further cautions are needed to avoid misinterpreting confidence intervals as providing sharp answers when none are warranted. The hypothesis which says the point estimate is the correct effect will have the largest P-value ($P = 1$ in most cases), and hypotheses inside a confidence interval will have higher P-values than hypotheses outside the interval. The P-values will vary greatly, however, among hypotheses inside the interval, as well as among hypotheses on the outside. Also, two hypotheses may have nearly equal P-values even though one of the hypotheses is inside the interval and the other is outside. Thus, if we use P-values to measure compatibility of hypotheses with data and wish to compare hypotheses with this measure, we need to examine their P-values directly, not simply ask whether the hypotheses are inside or outside the interval. This need is particularly acute when (as usual) one of the hypotheses under scrutiny is a null hypothesis.

Common Misinterpretations of Power

The *power* of a test to detect a correct alternative hypothesis is the pre-study probability that the test will reject the test hypothesis (e.g., the probability that P will not exceed a prespecified cut-off such as 0.05). (The corresponding prestudy probability of failing to reject the test hypothesis when the alternative is correct is one minus the power, also known as the Type-II or beta error rate; see Lehmann 1986.) As with P-values and confidence intervals, this probability is defined over repetitions of the same study design and so is a frequency probability. One source of reasonable alternative hypotheses are the effect sizes that were used to compute power in the study proposal. Prestudy power calculations do not, however, measure the compatibility of these alternatives with the data actually observed, while power calculated from the observed data is a direct (if obscure) transformation of the null P-value and so provides no test of the alternatives. Thus, presentation of power does not obviate the need to provide interval estimates and direct tests of the alternatives.

For these reasons, many authors have condemned use of power to interpret estimates and statistical tests (e.g., Cox 1958; Smith and Bates 1992; Goodman 1994; Goodman and Berlin 1994; Hoenig and Heisey 2001; Senn 2002b; Greenland 2012a), arguing that (in contrast to confidence intervals) it distracts attention from direct comparisons of hypotheses and introduces new misinterpretations, such as:

24. If you accept the null hypothesis because the null P-value exceeds 0.05 and the power of your test is 90%, the chance you are in error (the chance that your finding is a false negative) is 10%.—No! If the null hypothesis is false and you accept

it, the chance you are in error is 100%, not 10%. Conversely, if the null hypothesis is true and you accept it, the chance you are in error is 0%. The 10% refers only to how often you would be in error over very many uses of the test across different studies when the particular alternative used to compute power is correct *and* all other assumptions used for the test are correct in all the studies. It does not refer to your single use of the test or your error rate under any alternative effect size other than the one used to compute power.

It can be especially misleading to compare results for two hypotheses by presenting a test or *P*-value for one and power for the other. For example, testing the null by seeing whether $P \leq 0.05$ with a power less than $1 - 0.05 = 0.95$ for the alternative (as done routinely) will bias the comparison in favor of the null because it entails a lower probability of incorrectly rejecting the null (0.05) than of incorrectly accepting the null when the alternative is correct. Thus, claims about relative support or evidence need to be based on direct and comparable measures of support or evidence for both hypotheses, otherwise mistakes like the following will occur:

25. If the null P-value exceeds 0.05 and the power of this test is 90% at an alternative, the results support the null over the alternative.—This claim seems intuitive to many, but counterexamples are easy to construct in which the null *P*-value is between 0.05 and 0.10, and yet there are alternatives whose own *P*-value exceeds 0.10 and for which the power is 0.90. Parallel results ensue for other accepted measures of compatibility, evidence, and support, indicating that the data show lower compatibility with and more evidence against the null than the alternative, despite the fact that the null *P*-value is "not significant" at the 0.05 alpha level and the power against the alternative is "very high" (Greenland, 2012a).

Despite its shortcomings for interpreting current data, power can be useful for designing studies and for understanding why replication of "statistical significance" will often fail even under ideal conditions. Studies are often designed or claimed to have 80% power against a key alternative when using a 0.05 significance level, although in execution often have less power due to unanticipated problems such as low subject recruitment. Thus, if the alternative is correct and the actual power of two studies is 80%, the chance that the studies will both show $P \leq 0.05$ will at best be only $0.80(0.80) = 64\%$; furthermore, the chance that one study shows $P \leq 0.05$ and the other does not (and thus will be misinterpreted as showing conflicting results) is $2(0.80)0.20 = 32\%$ or about 1 chance in 3. Similar calculations taking account of typical problems suggest that one could anticipate a "replication crisis" even if there were no publication or reporting bias, simply because current design and testing conventions treat individual study results as dichotomous outputs of "significant"/"nonsignificant" or "reject"/"accept."

A Statistical Model is Much More Than an Equation with Greek Letters

The above list could be expanded by reviewing the research literature. We will however turn to direct discussion of an issue that has been receiving more attention of late, yet is still widely overlooked or interpreted too narrowly in statistical teaching and presentations: That the statistical model used to obtain the results is correct.

Too often, the full statistical model is treated as a simple regression or structural equation in which effects are represented by parameters denoted by Greek letters. "Model checking" is then limited to tests of fit or testing additional terms for the model. Yet these tests of fit themselves make further assumptions that should be seen as part of the full model. For example, all common tests and confidence intervals depend on assumptions of random selection for observation or treatment and random loss or missingness within levels of controlled covariates. These assumptions have gradually come under scrutiny via sensitivity and bias analysis (e.g., Lash et al. 2014), but such methods remain far removed from the basic statistical training given to most researchers.

Less often stated is the even more crucial assumption that the analyses themselves were not guided toward finding nonsignificance or significance (analysis bias), and that the analysis results were not reported based on their nonsignificance or significance (reporting bias and publication bias). Selective reporting renders false even the limited ideal meanings of statistical significance, *P*-values, and confidence intervals. Because author decisions to report and editorial decisions to publish results often depend on whether the *P*-value is above or below 0.05, selective reporting has been identified as a major problem in large segments of the scientific literature (Dwan et al. 2013; Page et al. 2014; You et al. 2012).

Although this selection problem has also been subject to sensitivity analysis, there has been a bias in studies of reporting and publication bias: It is usually assumed that these biases favor significance. This assumption is of course correct when (as is often the case) researchers select results for presentation when $P \leq 0.05$, a practice that tends to exaggerate associations (Button et al. 2013; Eyding et al. 2010; Land 1980; Land 1981). Nonetheless, bias in favor of reporting $P \leq 0.05$ is not always plausible let alone supported by evidence or common sense. For example, one might expect selection for $P > 0.05$ in publications funded by those with stakes in acceptance of the null hypothesis (a practice which tends to understate associations); in accord with that expectation, some empirical studies have observed smaller estimates and "nonsignificance" more often in such publications than in other studies (Eyding et al. 2010; Greenland 2009; Xu et al. 2013).

Addressing such problems would require far more political will and effort than addressing misinterpretation of statistics, such as enforcing registration of trials, along with open data and analysis code from all completed studies (as in the AllTrials initiative, *http://www.alltrials.net/*). In the meantime, readers are advised to consider the entire context in which research reports are produced and appear when interpreting the statistics and conclusions offered by the reports.

Conclusions

Upon realizing that statistical tests are usually misinterpreted, one may wonder what if anything these tests do for science. They were originally intended to account for random variability as a source of error, thereby sounding a note of caution against overinterpretation of observed associations as true effects or as stronger evidence against null hypotheses than was warranted. But before long that use was turned on its head to provide fallacious support for null hypotheses in the form of "failure to achieve" or "failure to attain" statistical significance.

We have no doubt that the founders of modern statistical testing would be horrified by common treatments of their invention. In their first paper describing their binary approach to statistical testing, Neyman and Pearson (1928) wrote that "it is doubtful whether the knowledge that [a P-value] was really 0.03 (or 0.06), rather than 0.05 ... would in fact ever modify our judgment" and that "The tests themselves give no final verdict, but as tools help the worker who is using them to form his final decision." Pearson (1955) later added, "No doubt we could more aptly have said, 'his final or provisional decision'." Fisher (1956, p. 42) went further, saying "No scientific worker has a fixed level of significance at which from year to year, and in all circumstances, he rejects hypotheses; he rather gives his mind to each particular case in the light of his evidence and his ideas." Yet fallacious and ritualistic use of tests continued to spread, including beliefs that whether P was above or below 0.05 was a universal arbiter of discovery. Thus by 1965, Hill (1965) lamented that "too often we weaken our capacity to interpret data and to take reasonable decisions whatever the value of P. And far too often we deduce 'no difference' from 'no significant difference'."

In response, it has been argued that some misinterpretations are harmless in tightly controlled experiments on well-understood systems, where the test hypothesis may have special support from established theories (e.g., Mendelian genetics) and in which every other assumption (such as random allocation) is forced to hold by careful design and execution of the study. But it has long been asserted that the harms of statistical testing in more uncontrollable and amorphous research settings (such as social-science, health, and medical fields) have far outweighed its benefits, leading to calls for banning such tests in research reports—again, with one journal banning confidence intervals as well as P-values (Trafimow and Marks 2015).

Given, however, the deep entrenchment of statistical testing, as well as the absence of generally accepted alternative methods, there have been many attempts to salvage P-values by detaching them from their use in significance tests. One approach is to focus on P-values as continuous measures of compatibility, as described earlier. Although this approach has its own limitations (as described in points 1, 2, 5, 9, 17, and 18), it avoids misconceptions arising from comparison of P-values with arbitrary cutoffs such as 0.05 (as described in points 3, 4, 6–8, 10–13, 15, 16, 21, and 23–25). Another approach is to teach and use correct relations of P-values to hypothesis probabilities. For example, under common statistical models, one-sided P-values can provide lower bounds on probabilities for hypotheses about effect directions (Casella and Berger 1987ab; Greenland and

Poole 2013ab). Whether such reinterpretations can eventually replace common misinterpretations to good effect remains to be seen.

A shift in emphasis from hypothesis testing to estimation has been promoted as a simple and relatively safe way to improve practice (Yates 1951; Rothman 1978; Altman et al. 2000; Poole 2001; Cumming 2011), resulting in increasing use of confidence intervals and editorial demands for them; nonetheless, this shift has brought to the fore misinterpretations of intervals such as 19–23 above (Morey et al. 2015). Other approaches combine tests of the null with further calculations involving both null and alternative hypotheses (Rosenthal and Rubin 1994; Mayo and Spanos 2006); such calculations may, however, may bring with them further misinterpretations similar to those described above for power, as well as greater complexity.

Meanwhile, in the hopes of minimizing harms of current practice, we can offer several guidelines for users and readers of statistics, and re-emphasize some key warnings from our list of misinterpretations:

a) Correct and careful interpretation of statistical tests demands examining the sizes of effect estimates and confidence limits, as well as precise P-values (not just whether P-values are above or below 0.05 or some other threshold).

b) Careful interpretation also demands critical examination of the assumptions and conventions used for the statistical analysis—not just the usual statistical assumptions, but also the hidden assumptions about how results were generated and chosen for presentation.

c) It is simply false to claim that statistically nonsignificant results support a test hypothesis, because the same results may be even more compatible with alternative hypotheses—even if the power of the test is high for those alternatives.

d) Interval estimates aid in evaluating whether the data are capable of discriminating among various hypotheses about effect sizes, or whether statistical results have been misrepresented as supporting one hypothesis when those results are better explained by other hypotheses (see points 4–6). We caution however that confidence intervals are often only a first step in these tasks. To compare hypotheses in light of the data and the statistical model it may be necessary to calculate the P-value (or relative likelihood) of each hypothesis. We further caution that confidence intervals provide only a best-case measure of the uncertainty or ambiguity left by the data, insofar as they depend on an uncertain statistical model.

e) Correct statistical evaluation of multiple studies requires a pooled analysis or meta-analysis that deals correctly with study biases (Whitehead 2002; Borenstein et al. 2009; Chen and Peace 2013; Cooper et al. 2009; Greenland and O'Rourke 2008; Petitti 2000; Schmidt and Hunter 2014; Sterne 2009). Even when this is done, however, all the earlier cautions apply. Furthermore, the outcome of any statistical procedure is but one of many considerations that must be evaluated when examining the totality of evidence. In

particular, statistical significance is neither necessary nor sufficient for determining the scientific or practical significance of a set of observations. This view was affirmed unanimously by the U.S. Supreme Court, (Matrixx Initiatives, Inc., et al. v. Siracusano et al. No. 091156. Argued January 10, 2011, Decided March 22, 2011), and can be seen in our earlier quotes from Neyman and Pearson.

f) Any opinion offered about the *probability, likelihood, certainty*, or similar property for a hypothesis *cannot* be derived from statistical methods alone. In particular, significance tests and confidence intervals do not by themselves provide a logically sound basis for concluding an effect is present or absent with certainty or a given probability. This point should be borne in mind whenever one sees a conclusion framed as a statement of probability, likelihood, or certainty about a hypothesis. Information about the hypothesis beyond that contained in the analyzed data and in conventional statistical models (which give only data probabilities) must be used to reach such a conclusion; that information should be explicitly acknowledged and described by those offering the conclusion. Bayesian statistics offers methods that attempt to incorporate the needed information directly into the statistical model; they have not however achieved the popularity of *P*-values and confidence intervals, in part because of philosophical objections and in part because no conventions have become established for their use.

g) All statistical methods (whether frequentist or Bayesian, or for testing or estimation, or for inference or decision) make extensive assumptions about the sequence of events that led to the results presented—not only in the data generation, but in the analysis choices. Thus, to allow critical evaluation, research reports (including meta-analyses) should describe in detail the full sequence of events that led to the statistics presented, including the motivation for the study, its design, the original analysis plan, the criteria used to include and exclude subjects (or studies) and data, and a thorough description of all the analyses that were conducted.

In closing, we note that no statistical method is immune to misinterpretation and misuse, but prudent users of statistics will avoid approaches especially prone to serious abuse. In this regard, we join others in singling out the degradation of *P*-values into "significant" and "nonsignificant" as an especially pernicious statistical practice (Weinberg 2001).

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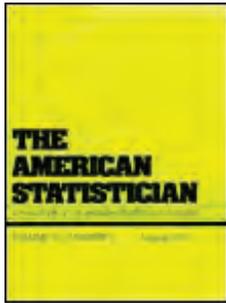
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The ASA's Statement on p-Values: Context, Process, and Purpose

Ronald L. Wasserstein & Nicole A. Lazar

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EDITORIAL

The ASA's Statement on *p*-Values: Context, Process, and Purpose

In February 2014, George Cobb, Professor Emeritus of Mathematics and Statistics at Mount Holyoke College, posed these questions to an ASA discussion forum:

Q: Why do so many colleges and grad schools teach $p = 0.05$?
A: Because that's still what the scientific community and journal editors use.
Q: Why do so many people still use $p = 0.05$?
A: Because that's what they were taught in college or grad school.

Cobb's concern was a long-worrisome circularity in the sociology of science based on the use of bright lines such as $p < 0.05$: "We teach it because it's what we do; we do it because it's what we teach." This concern was brought to the attention of the ASA Board.

The ASA Board was also stimulated by highly visible discussions over the last few years. For example, ScienceNews (Siegfried 2010) wrote: "It's science's dirtiest secret: The 'scientific method' of testing hypotheses by statistical analysis stands on a flimsy foundation." A November 2013, article in Phys.org Science News Wire (2013) cited "numerous deep flaws" in null hypothesis significance testing. A ScienceNews article (Siegfried 2014) on February 7, 2014, said "statistical techniques for testing hypotheses …have more flaws than Facebook's privacy policies." A week later, statistician and "Simply Statistics" blogger Jeff Leek responded. "The problem is not that people use P-values poorly," Leek wrote, "it is that the vast majority of data analysis is not performed by people properly trained to perform data analysis" (Leek 2014). That same week, statistician and science writer Regina Nuzzo published an article in *Nature* entitled "Scientific Method: Statistical Errors" (Nuzzo 2014). That article is now one of the most highly viewed *Nature* articles, as reported by altmetric.com (http://www.altmetric.com/details/2115792#score).

Of course, it was not simply a matter of responding to some articles in print. The statistical community has been deeply concerned about issues of *reproducibility* and *replicability* of scientific conclusions. Without getting into definitions and distinctions of these terms, we observe that much confusion and even doubt about the validity of science is arising. Such doubt can lead to radical choices, such as the one taken by the editors of *Basic and Applied Social Psychology*, who decided to ban *p*-values (null hypothesis significance testing) (Trafimow and Marks 2015). Misunderstanding or misuse of statistical inference is only one cause of the "reproducibility crisis" (Peng 2015), but to our community, it is an important one.

When the ASA Board decided to take up the challenge of developing a policy statement on *p*-values and statistical significance, it did so recognizing this was not a lightly taken step. The ASA has not previously taken positions on specific matters of statistical practice. The closest the association has come to this is a statement on the use of value-added models (VAM) for educational assessment (Morganstein and Wasserstein

2014) and a statement on risk-limiting post-election audits (American Statistical Association 2010). However, these were truly policy-related statements. The VAM statement addressed a key educational policy issue, acknowledging the complexity of the issues involved, citing limitations of VAMs as effective performance models, and urging that they be developed and interpreted with the involvement of statisticians. The statement on election auditing was also in response to a major but specific policy issue (close elections in 2008), and said that statistically based election audits should become a routine part of election processes.

By contrast, the Board envisioned that the ASA statement on *p*-values and statistical significance would shed light on an aspect of our field that is too often misunderstood and misused in the broader research community, and, in the process, provides the community a service. The intended audience would be researchers, practitioners, and science writers who are not primarily statisticians. Thus, this statement would be quite different from anything previously attempted.

The Board tasked Wasserstein with assembling a group of experts representing a wide variety of points of view. On behalf of the Board, he reached out to more than two dozen such people, all of whom said they would be happy to be involved. Several expressed doubt about whether agreement could be reached, but those who did said, in effect, that if there was going to be a discussion, they wanted to be involved.

Over the course of many months, group members discussed what format the statement should take, tried to more concretely visualize the audience for the statement, and began to find points of agreement. That turned out to be relatively easy to do, but it was just as easy to find points of intense disagreement.

The time came for the group to sit down together to hash out these points, and so in October 2015, 20 members of the group met at the ASA Office in Alexandria, Virginia. The 2-day meeting was facilitated by Regina Nuzzo, and by the end of the meeting, a good set of points around which the statement could be built was developed.

The next 3 months saw multiple drafts of the statement, reviewed by group members, by Board members (in a lengthy discussion at the November 2015 ASA Board meeting), and by members of the target audience. Finally, on January 29, 2016, the Executive Committee of the ASA approved the statement.

The statement development process was lengthier and more controversial than anticipated. For example, there was considerable discussion about how best to address the issue of multiple *potential* comparisons (Gelman and Loken 2014). We debated at some length the issues behind the words "a *p*-value near 0.05 taken by itself offers only weak evidence against the null

hypothesis" (Johnson 2013). There were differing perspectives about how to characterize various alternatives to the *p*-value and in how much detail to address them. To keep the statement reasonably simple, we did not address alternative hypotheses, error types, or power (among other things), and not everyone agreed with that approach.

As the end of the statement development process neared, Wasserstein contacted Lazar and asked if the policy statement might be appropriate for publication in *The American Statistician* (*TAS*). After consideration, Lazar decided that *TAS* would provide a good platform to reach a broad and general statistical readership. Together, we decided that the addition of an online discussion would heighten the interest level for the *TAS* audience, giving an opportunity to reflect the aforementioned controversy.

To that end, a group of discussants was contacted to provide comments on the statement. You can read their statements in the online supplement, and a guide to those statements appears at the end of this editorial. We thank Naomi Altman, Douglas Altman, Daniel J. Benjamin, Yoav Benjamini, Jim Berger, Don Berry, John Carlin, George Cobb, Andrew Gelman, Steve Goodman, Sander Greenland, John Ioannidis, Joseph Horowitz, Valen Johnson, Michael Lavine, Michael Lew, Rod Little, Deborah Mayo, Michele Millar, Charles Poole, Ken Rothman, Stephen Senn, Dalene Stangl, Philip Stark and Steve Ziliak for sharing their insightful perspectives.

Of special note is the following article, which is a significant contribution to the literature about *p*-values and statistical significance.

> Greenland, S., Senn, S.J., Rothman, K.J., Carlin, J.B., Poole, C., Goodman, S.N. and Altman, D.G.: "Statistical Tests, *P*-values, Confidence Intervals, and Power: A Guide to Misinterpretations."

Though there was disagreement on exactly what the statement should say, there was high agreement that the ASA should be speaking out about these matters.

Let us be clear. Nothing in the ASA statement is new. Statisticians and others have been sounding the alarm about these matters for decades, to little avail. We hoped that a statement from the world's largest professional association of statisticians would open a fresh discussion and draw renewed and vigorous attention to changing the practice of science with regards to the use of statistical inference.

Guide to the Online Supplemental Material to the ASA Statement on *P*-Values and Statistical Significance

Many of the participants in the development of the ASA statement contributed commentary about the statement or matters related to it. Their comments are posted as online supplements to the statement. We provide here a list of the supplemental articles.

Supplemental Material to the ASA Statement on *P*-Values and Statistical Significance

- *Altman, Naomi*: Ideas from multiple testing of high dimensional data provide insights about reproducibility and false discovery rates of hypothesis supported by *p*-values

- *Benjamin, Daniel J, and Berger, James O:* A simple alternative to *p*-values
- *Benjamini, Yoav:* It's not the *p*-values' fault
- *Berry, Donald A:* *P*-values are not what they're cracked up to be
- *Carlin, John B:* Comment: Is reform possible without a paradigm shift?
- *Cobb, George:* ASA statement on p-values: Two consequences we can hope for
- *Gelman, Andrew:* The problems with *p*-values are not just with *p*-values
- *Goodman, Steven N:* The next questions: Who, what, when, where, and why?
- *Greenland, Sander:* The ASA guidelines and null bias in current teaching and practice
- *Ioannidis, John P.A.:* Fit-for-purpose inferential methods: abandoning/changing *P*-values versus abandoning/changing research
- *Johnson, Valen E.:* Comments on the "ASA Statement on Statistical Significance and *P*-values" and marginally significant *p*-values
- *Lavine, Michael, and Horowitz, Joseph:* Comment
- *Lew, Michael J:* Three inferential questions, two types of *P*-value
- *Little, Roderick J:* Discussion
- *Mayo, Deborah G:* Don't throw out the error control baby with the bad statistics bathwater
- *Millar, Michele:* ASA statement on *p*-values: some implications for education
- *Rothman, Kenneth J:* Disengaging from statistical significance
- *Senn, Stephen:* Are *P*-Values the Problem?
- *Stangl, Dalene:* Comment
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ASA Statement on Statistical Significance and *P*-Values

1. Introduction

Increased quantification of scientific research and a proliferation of large, complex datasets in recent years have expanded the scope of applications of statistical methods. This has created new avenues for scientific progress, but it also brings concerns about conclusions drawn from research data. The validity of scientific conclusions, including their reproducibility, depends on more than the statistical methods themselves. Appropriately chosen techniques, properly conducted analyses and correct interpretation of statistical results also play a key role in ensuring that conclusions are sound and that uncertainty surrounding them is represented properly.

Underpinning many published scientific conclusions is the concept of "statistical significance," typically assessed with an index called the *p*-value. While the *p*-value can be a useful statistical measure, it is commonly misused and misinterpreted. This has led to some scientific journals discouraging the use of *p*-values, and some scientists and statisticians recommending their abandonment, with some arguments essentially unchanged since *p*-values were first introduced.

In this context, the American Statistical Association (ASA) believes that the scientific community could benefit from a formal statement clarifying several widely agreed upon principles underlying the proper use and interpretation of the *p*-value. The issues touched on here affect not only research, but research funding, journal practices, career advancement, scientific education, public policy, journalism, and law. This statement does not seek to resolve all the issues relating to sound statistical practice, nor to settle foundational controversies. Rather, the statement articulates in nontechnical terms a few select principles that could improve the conduct or interpretation of quantitative science, according to widespread consensus in the statistical community.

2. What is a *p*-Value?

Informally, a *p*-value is the probability under a specified statistical model that a statistical summary of the data (e.g., the sample mean difference between two compared groups) would be equal to or more extreme than its observed value.

3. Principles

1. **P-values can indicate how incompatible the data are with a specified statistical model.**

    A *p*-value provides one approach to summarizing the incompatibility between a particular set of data and a proposed model for the data. The most common context is a model, constructed under a set of assumptions, together with a so-called "null hypothesis." Often the null hypothesis postulates the absence of an effect, such as no difference between two groups, or the absence of a relationship between a factor and an outcome. The smaller the *p*-value, the greater the statistical incompatibility of the data with the null hypothesis, if the underlying assumptions used to calculate the *p*-value hold. This incompatibility can be interpreted as casting doubt on or providing evidence against the null hypothesis or the underlying assumptions.

2. **P-values do not measure the probability that the studied hypothesis is true, or the probability that the data were produced by random chance alone.**

    Researchers often wish to turn a *p*-value into a statement about the truth of a null hypothesis, or about the probability that random chance produced the observed data. The *p*-value is neither. It is a statement about data in relation to a specified hypothetical explanation, and is not a statement about the explanation itself.

3. **Scientific conclusions and business or policy decisions should not be based only on whether a *p*-value passes a specific threshold.**

    Practices that reduce data analysis or scientific inference to mechanical "bright-line" rules (such as "*p* < 0.05") for justifying scientific claims or conclusions can lead to erroneous beliefs and poor decision making. A conclusion does not immediately become "true" on one side of the divide and "false" on the other. Researchers should bring many contextual factors into play to derive scientific inferences, including the design of a study, the quality of the measurements, the external evidence for the phenomenon under study, and the validity of assumptions that underlie the data analysis. Pragmatic considerations often require binary, "yes-no" decisions, but this does not mean that *p*-values alone can ensure that a decision is correct or incorrect. The widespread use of "statistical significance" (generally interpreted as "*p* ≤ 0.05") as a license for making a claim of a scientific finding (or implied truth) leads to considerable distortion of the scientific process.

4. **Proper inference requires full reporting and transparency**

    P-values and related analyses should not be reported selectively. Conducting multiple analyses of the data and reporting only those with certain *p*-values (typically those passing a significance threshold) renders the

reported *p*-values essentially uninterpretable. Cherry-picking promising findings, also known by such terms as data dredging, significance chasing, significance questing, selective inference, and "*p*-hacking," leads to a spurious excess of statistically significant results in the published literature and should be vigorously avoided. One need not formally carry out multiple statistical tests for this problem to arise: Whenever a researcher chooses what to present based on statistical results, valid interpretation of those results is severely compromised if the reader is not informed of the choice and its basis. Researchers should disclose the number of hypotheses explored during the study, all data collection decisions, all statistical analyses conducted, and all *p*-values computed. Valid scientific conclusions based on *p*-values and related statistics cannot be drawn without at least knowing how many and which analyses were conducted, and how those analyses (including *p*-values) were selected for reporting.

5. **A *p*-value, or statistical significance, does not measure the size of an effect or the importance of a result.**

Statistical significance is not equivalent to scientific, human, or economic significance. Smaller *p*-values do not necessarily imply the presence of larger or more important effects, and larger *p*-values do not imply a lack of importance or even lack of effect. Any effect, no matter how tiny, can produce a small *p*-value if the sample size or measurement precision is high enough, and large effects may produce unimpressive *p*-values if the sample size is small or measurements are imprecise. Similarly, identical estimated effects will have different *p*-values if the precision of the estimates differs.

6. **By itself, a *p*-value does not provide a good measure of evidence regarding a model or hypothesis.**

Researchers should recognize that a *p*-value without context or other evidence provides limited information. For example, a *p*-value near 0.05 taken by itself offers only weak evidence against the null hypothesis. Likewise, a relatively large *p*-value does not imply evidence in favor of the null hypothesis; many other hypotheses may be equally or more consistent with the observed data. For these reasons, data analysis should not end with the calculation of a *p*-value when other approaches are appropriate and feasible.

4. Other Approaches

In view of the prevalent misuses of and misconceptions concerning *p*-values, some statisticians prefer to supplement or even replace *p*-values with other approaches. These include methods that emphasize estimation over testing, such as confidence, credibility, or prediction intervals; Bayesian methods; alternative measures of evidence, such as likelihood ratios or Bayes Factors; and other approaches such as decision-theoretic modeling and false discovery rates. All these measures and approaches rely on further assumptions, but they may more directly address the size of an effect (and its associated uncertainty) or whether the hypothesis is correct.

5. Conclusion

Good statistical practice, as an essential component of good scientific practice, emphasizes principles of good study design and conduct, a variety of numerical and graphical summaries of data, understanding of the phenomenon under study, interpretation of results in context, complete reporting and proper logical and quantitative understanding of what data summaries mean. No single index should substitute for scientific reasoning.

Acknowledgments

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PUBLIC SUBMISSION

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0007
Comment on FR Doc # 2016-22002

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General Comment

Thank you for this opportunity to address the challenges faced by the Commission on Evidence-Based Policymaking and to share my views on what the Commission may realistically hope to accomplish. My comments, attached here, draw on the statement that my colleagues and I prepared, "From Data to Evidence to Policy," as well as on my long experience as an analyst of large-scale data sets from administrative records, survey studies, and field experiments.

Attachments

Goals for the Commission + Data to Evidence packet_WTG

![William T. Grant Foundation logo]

October 11, 2016

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Dear Katharine and Ron,

Thank you for this opportunity to address the challenges faced by the Commission on Evidence-Based Policymaking and to share my views on what the Commission may realistically hope to accomplish. My comments draw on the statement that my colleagues and I prepared, *From Data to Evidence to Policy*, as well as on my long experience as an analyst of large-scale data sets from administrative records, survey studies, and field experiments.

In our statement, we offer four recommendations to the Commission:

- Adopt a broad reading of the Commission's mandate to include not just linking and sharing administrative data, but preparing data for use by researchers inside and outside of government.
- Advance a framework that recognizes different forms of evidence and varied uses of linked administrative data.
- Recommend ways to strengthen the federal infrastructure for producing research evidence that can inform policymaking.
- Recommend to federal agencies that they support partnerships between researchers and policymakers to enhance the use of research evidence for smart policy decisions.

In this letter, I will identify three specific goals to which the Commission may aspire that would respond to these recommendations and the Commission's mandate.

1. **Devise a standardized process for linking administrative data across federal government agencies, and between federal agencies and willing state partners, that protects the privacy of individuals while facilitating research.**

    Many proof cases exist that demonstrate the feasibility of producing valuable research evidence by linking federal administrative data to surveys, experimental data, or other administrative records. Moreover, we know that the data can be linked in secure facilities using protected identity codes that ensure privacy. At present, however, each researcher using the data must start the process anew, which poses nearly impassible barriers for researchers and unreasonable burdens on federal agencies and state partners. The Commission can address these challenges by identifying an approach, or a set of approaches, that allows researchers to access and use data routinely, in secure facilities, while also satisfying the technical demands of privacy protection.

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One example that may guide the Commission in this regard comes from the experience of the National Center for Education Statistics, which planned a new longitudinal survey with oversamples in ten states whose education agencies had agreed in principle to link their administrative data to the surveys. This would have created a valuable new resource for addressing critical education policy questions, yet bureaucratic and legal barriers ultimately prevented data sharing by any of the ten states. The Commission can overcome such barriers with a framework that articulates the technical requirements, legal standing, and accepted procedures for linking and sharing data across federal agencies and with willing state partners.

In providing a framework to standardize data sharing, the Commission can specify the different types of data that may be linked—including administrative, survey, and experimental data—and the different purposes of such linkages, including program continuation decisions, program improvement plans, and obtaining accurate understanding of the nature of challenges we face as a nation (such as the link between geography and economic mobility as demonstrated in recent testimony to the Commission by Raj Chetty).

The Commission might further recommend a pilot that would begin with specific agencies that, based on the investigations of the Commission, seem best prepared to implement a standardized procedure for linking data and making them accessible to researchers inside and outside of government. For instance, Chapin Hall at the University of Chicago, with support from the Laura and John Arnold Foundation and in partnership with the U.S. Census Bureau, is sponsoring a series of studies to demonstrate innovative approaches to linking administrative data, and the Commission might look to these studies as examples.

2. **Recommend specific infrastructure elements that the federal government may adopt to support the use of evidence in policymaking.**

The Commission's mandate includes not only a directive to recommend ways to link and share administrative data, but also a call for guidance on ways that data may be used to create evidence that can guide policy. The Commission can respond to this challenge by examining infrastructure supports that are found in various agencies, identifying best practices, and recommending their wide adoption. Examples of such infrastructure elements include:

- leadership positions focused on evidence use, such as the special advisor for evidence-based policy in OMB and the chief technology officer in OSTP;
- interagency collaborative bodies, such as the federal chief information officers council and the Committee on National Statistics of the National Academies;
- a dedicated office for research and evaluation within each federal agency, such as the office of the assistant secretary for planning and evaluation within HHS, and the office of policy development and research within HUD;
- a codified set of principles and practices for evidence use, analogous to *Principles and Practices for a Federal Statistical Agency* and *Common Guidelines for Education Research and Development*; and
- policies and legislation to prioritize programs that strengthen the use of evidence and innovation (as modeled by OMB in its FY15 budget memorandum) and facilitate data-sharing across agencies to assess and improve programs.

3. **Examine models of partnerships that support the use of research evidence in policymaking, and recommend federal support for effective partnerships.**

Page 3

All too often, evidence about effective or ineffective policies or programs has little bearing on decisions, even when the evidence is rigorous, timely, and accessible. But sustained partnerships between researchers and policymakers can improve the use of research evidence by allowing for ongoing dialogue between researchers and decision makers. Indeed, partnerships that offer a basis for trust, incentivize researchers to address questions that really matter, and create a culture of evidence in the decision-making body can improve the use of research evidence in policy and practice.

The Commission can improve such use by identifying effective partnership models and promoting them across the federal government. Many models of partnerships exist, such as those outlined by the William T. Grant Foundation and the Forum for Youth Investment in their online guide for building and sustaining partnerships in education, located here: rpp.wtgrantfoundation.org.

Of course, these goals will not be achieved simply. But the Commission on Evidence-Based Policymaking is a rare and unique opportunity with tremendous potential, and we believe that the scale of this potential warrants equally ambitious goals. I would be pleased to discuss these recommendations and the specific strategies for achieving them, individually or with the Commission as a whole, if that would be helpful.

Sincerely,
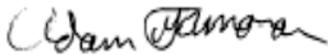
Adam Gamoran, President

From Data to Evidence to Policy

Recommendations for the Commission on Evidence-Based Policymaking

MAY, 2016

The William T. Grant Foundation

The William T. Grant Foundation supports research to improve the lives of young people ages 5–25 in the United States. Our goal is to accumulate a body of knowledge that will advance theory, policy, and practice and contribute to improved outcomes and opportunities for youth, today and in the future. In 2014, we launched an initiative to invest in research to identify effective responses to inequality in its many forms. And since 2009, we have supported studies that provide insight into how policymakers, administrators, and service providers acquire, interpret, and use research evidence. In 2015, we signaled a new direction in this initiative, calling for studies that identify, create, and test strategies to improve the use of research evidence in ways that benefit youth.

The Forum for Youth Investment

The Forum for Youth Investment is a nonprofit, nonpartisan "action tank" dedicated to helping communities and the nation make sure all young people are Ready by 21®: ready for college, work and life. A trusted resource for policy makers, advocates, researchers and program professionals, the Forum provides youth and adult leaders with the information, connections and tools they need to create greater opportunities and outcomes for young people. The Forum manages a number of centers and projects, including Big Picture Approach Consulting, the David P. Weikart Center for Youth Program Quality, the Children's Cabinet Network and SparkAction. The core work of the Forum is helping leaders, organizations, partnerships and systems – at the local, state and national levels – assess, improve and align their practices and policies.

From Data to Evidence to Policy
Recommendations for the Commission on Evidence-Based Policymaking

The Forum for Youth Investment and the William T. Grant Foundation are pleased to submit the following recommendations to the Commission on Evidence-Based Policymaking. We are encouraged by the Commission's potential to promote the use of research evidence in policymaking, and we offer these insights with the hope of helping the Commission make the most of its historic opportunity.

These suggestions are drawn from our experience as conveners of a learning group of senior career staff and appointees in research offices focused on children, youth, and families within the U.S. Departments of Education, Labor, Justice, and Health and Human Services, as well as in the Corporation for National and Community Service and the National Science Foundation. These agencies invest in research and evaluation to build policy-relevant evidence and will likely be charged with implementing many of the Commission's recommendations. They also have experience responding to similar challenges in the past. For these reasons, their insights may guide the Commission in developing a transformational set of recommendations.

The Path from Data to Evidence to Policy

A narrow interpretation of the Commission on Evidence-Based Policymaking legislation might suggest the Commission's charge is primarily to determine how the federal government can share and link administrative data sets. Accomplishing this aim would be of significant value. But a broader interpretation of its charge suggests that the Commission must not stop there. It should also consider *how the federal government can use data to create the evidence required for smart policy decisions,* as well as *how to create the infrastructure to support the use of evidence in policymaking*.

We urge the Commission to prioritize those elements of its charge that point toward these broader aims:

- Emphasize how data "may be integrated and made available to facilitate program evaluation, continuous improvement, policy-relevant research, and cost-benefit analyses by qualified researchers and institutions;" and
- Examine "how data and results of research can be used to inform program administrators and policymakers to improve program design."

Sharing and linking data is necessary but not sufficient to achieve these goals. The data must be deployed in research and evaluation to create evidence, which must be then be used to inform policymaking. Laying the groundwork for the path from data to evidence to policy is essential to the Commission's charge.

Sharing and Linking Data → Using Data to Create Evidence → Using Evidence to Inform Policymaking

Sharing and Linking Data

The Commission should recommend that data are collected and shared in ways that facilitate their use in research and evaluation.

Sharing data is a valuable first step. But the data take on added power when they can be used in research and evaluation studies. The Commission can fulfill its charge of addressing "how data and results can be used to inform program administrators and policymakers" by recommending ways that administrative data systems can be made ready for use in research and evaluation. The Commission could craft recommendations that would help ensure that data are linked; are of sufficient quality; and are delivered in formats that encourage their use in research that answers policymakers' questions.

Linking separate data sets together increases the value of each for research and evaluation. One federal staff member in our learning group commented, "I am working on linking existing databases to conduct research. I need to figure out what kinds of data are being collected….Who is tracking relevant outcomes, and how do you synthesize that with community-level data from multiple sources to tell the impact of interventions across multiple domains?"

DEFINITION OF RESEARCH EVIDENCE

The William T. Grant Foundation defines research evidence as "a type of evidence derived from applying systematic methods and analyses to address a predefined question or hypothesis. This includes descriptive studies, intervention or evaluation studies, meta-analyses, and cost-effectiveness studies conducted within or outside research organizations."

Linking existing data can also enable faster and cheaper research studies. As one participant reported, "There has been a lot of thinking overall in our department on the opportunities these longitudinal data systems have for low cost evaluations. A whole group of people in our program offices are focused on this right now." But using data that are not designed for research can be challenging. Sometimes the quality of the data is poor or unknown. As a learning group participant put it, "It is not easy to figure out if a given set of administrative data is high-quality enough to be used in a research context."

Sometimes the ways that the data are shared make it difficult to produce useful research reports. As one learning group participant shared, "Only one or two people in each of our agencies know how to manipulate specific databases, and those people have a long list of requests from multiple agencies to do specific data runs. We are hoping that we can take on the burden of getting the data ready. A lot of the data we have, like those that manage case files, were not created to be used for research, so that is a heavier lift. We want to give agencies a more realistic view of the data they actually have."

Using Data to Create Evidence

The Commission should recommend that federal agencies adopt a broad and inclusive view of the types of research studies that can and should be produced with administrative data.

The power of data increases when they are used to create **research evidence** (see sidebar). Too often, however, a narrow conceptualization of data *as* evidence limits the ability of policymakers to gain full understanding of an issue. The Commission could add value to the field by advancing a framework that delineates the types of research evidence that should be created to guide policymaking.

The Commission may wish to reinforce frameworks such as the Institute of Education Sciences/National Science Foundation's *Common Guidelines for Education Research Development* framework[1] and the Health and Human Services Administration for Children and Families' *Common Framework for Research & Evaluation.*[2] Adopting these types of frameworks would help ensure that policymakers not only receive findings from the full range of types of research evidence, but review this evidence with a clear understanding of the level of rigor and quality inherent in each type of study, and what types of questions are answerable by each respective research methodology.[3]

Using Evidence to Inform Policymaking

The Commission should recommend that federal agencies support partnerships between researchers and policymakers that inform key research questions and facilitate the use of research evidence.
Partnerships between researchers and policymakers can improve the use of research evidence by guiding researchers to ask questions that respond to the needs of policymakers, building stronger practice-focused research networks or community-based participatory approaches, and creating a culture of learning in which administrators, policymakers and other government leaders include research evidence in their deliberations.

The growing literature about how and when research evidence is and is not used in policymaking can inform the Commission's work. These studies "complicate the common conception of research users as merely rational actors who have questions, go in search of research to answer them, and then apply it to their decisions…. In none of their cases does research use easily boil down to a single moment or an isolated decision….It is not a simple process whereby research 'facts' are passed from researchers to research users and then applied in a linear decision making process. Instead, research use is contingent, interactive, and iterative. It involves people individually and collectively engaging with research over time, bringing their own and their organization's goals, motivations, routines, and political contexts with them."[4] It is often helpful to construct evidence in a process of engagement, in which the needs of decision makers help shape research questions and findings are delivered in an accessible and timely fashion through relationships of trust and mutual understanding.

The Commission should recommend ways to strengthen the federal infrastructure for producing research evidence that can inform policymaking.
To address its charge to examine how data may be "made available to facilitate program evaluation, continuous improvement, policy-relevant research, and cost-benefit analyses by qualified researchers and institutions," it is important for the Commission to create recommendations for strengthening the federal infrastructure for using data to create evidence, and using that evidence to inform policymaking.

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[1] Available at: http://www.nsf.gov/pubs/2013/nsf13126/nsf13126.pdf
[2] Available at: http://www.acf.hhs.gov/programs/opre/resource/the-administration-for-children-families-common-framework-for-research-and-evaluation
[3] While there may not yet be widely accepted quality standards for the all types of research, some of our learning group members pointed to the following article as a promising start: Gottfredson, D. C., Cook, T. D., Gardner, F. E. M., Gorman-Smith, D., Howe, G. W., Sandler, I. N., & and Zafft, K. M. (2015). Standards of evidence for efficacy, effectiveness, and scale-up research in prevention science: Next generation. *Prevention Science*, *16*, 893-926.
[4] Tseng, V. & Nutley, S. (2014). Building the Infrastructure to Improve the Use and Usefulness of Research in Education. In K.S. Finnigan & A.J. Daly (Eds.). *Using Research Evidence in Education: From the Schoolhouse Door to Capitol Hill*. Springer: New York. Available at: http://wtgrantfoundation.org/resource/building-the-infrastructure-to-improve-the-use-and-usefulness-of-research-in-education

An infrastructure could include elements such as formal policies, codified practices, established offices, and interagency coordinating structures.

Fortunately, there are existing efforts that the Commission could build upon. The Department of Labor and the Department of Health and Human Services, Administration for Children and Families both created evaluation policies that can serve as models for other agencies.[5] The Department of Labor created a Chief Evaluation Office, and conducts an annual survey to assess its performance meeting the research needs of program offices. HHS Administration for Children and Families, Office of Planning Research and Evaluation also published a set of principles to guide all of its evaluation work.[6] Further, the Institute of Education Sciences has protections, granted by Congress in its authorizing language, that support scientific integrity and independence from political influence.

Additionally, a subset of learning group participants funded a National Academy of Sciences Roundtable to consider an infrastructure for evaluation that parallels the existing infrastructure for statistical agencies. (Federal statistical agencies receive support from a Chief Statistician housed at the White House Office of Management and Budget; a public-private, interagency Committee on National Statistics; and a carefully codified and updated set of Principles and Practices for a Federal Statistical Agency.[7]) The Commission may wish to be briefed on this effort. The Commission may also wish to be briefed on the types of infrastructure that have been created to support federal agencies' performance management functions, such as the role the federal Performance Improvement Council plays in fostering widespread and effective use of performance management practices across federal agencies and sparking cross-cutting performance improvements.[8]

Conclusion

The creation of the Commission on Evidence-Based Policymaking is well timed. As shared in the William T. Grant Foundation's recent blog series *Evidence at the Crossroads*, "research evidence can improve public policies and programs, but fulfilling that potential will require honest assessments of current initiatives, coming to terms with outsized expectations, and learning ways to improve social interventions and public systems."[9]

The Commission is well positioned to drive this work forward, especially if it focuses on the full continuum of activity from sharing and linking data, to using those data to create research evidence, to using that evidence to inform policymaking.

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[5] See http://www.dol.gov/asp/evaluation/EvaluationPolicy.htm and http://www.acf.hhs.gov/programs/opre/resource/acf-evaluation-policy

[6] The HHS principles are posted at: http://www.acf.hhs.gov/opre/resource/acf-evaluation-policy

[7] Principles and practices for federal statistics agencies are posted at: http://sites.nationalacademies.org/DBASSE/CNSTAT/Principles_and_Practices_for_a_Federal_Statistical_Agency/index.htm

[8] On the role of the Performance Improvement Council, see: http://www.gsa.gov/portal/content/133807

[9] See: http://wtgrantfoundation.org/tag/evidence-at-the-crossroads

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0008
Comment on FR Doc # 2016-22002

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General Comment

One simple way to vastly improve evidence-based policymaking regarding higher education would be to repeal the existing ban on a federal student unit record system. Lifting that ban would enable EXISTING data systems to communicate with one another and thereby answer critical questions that can't be answered now, especially questions about the OUTCOMES of higher education programs in which the federal government/taxpayers invest billions of dollars. These questions include: how part-time and older students fare; what happens to the large number of students who transfer from one college to another; how many and which students complete their programs at specific colleges, especially students receiving federal Pell grants ($30 billion per year); and whether graduates are able to obtain jobs that pay enough to meet their student loan obligations.

Supporters of the existing ban express say it is needed to protect student privacy. However, major higher education associations that once supported that position, notably the Association of Public and Land-grant Universities and the National Association of Student Financial Aid Administrators, now back creating a Student Unit Record. A

recent statement to CEP by New America's Rachel Fishman shows how the privacy concerns can be addressed without a ban: "Creating a Student Unit Record wold not require the collection of additional student data, but would allow the connecting of exiting data already held by a variety of federal and state agencies. Protecting these data al all points of the lifecycle is crucial, and it is worth considering housing such a system in the Department of Education's National Center for Education Statistics, which is classified as a statistical agency and therefore subject to strict privacy and security requirements..."

Some states (IN, TX) and universities are now developing their own workarounds to the ban, for they feel a keen need to obtain and share better data on student outcomes. Such initiatives are commendable, but underline the obsolescence of the ban on a federal student unit record and raise concerns about data consistency and comparability across states.

In sum, the federal government could realize and promote a much higher return on its and the country's enormous investments in higher education if there were a federal student unit record system that enabled existing data systems to realize their potential for informing more evidence-based policymaking.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0009
Comment on FR Doc # 2016-22002

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General Comment

See attached file(s) from the Federal Evaluators network.

Attachments

FEDEVAL_COMMENTS_ON_COMMISSION_SOLICITATION

Submitted 10/14/2016

Docket # USBC-2016-0003: Commission on Evidence-Based Policymaking Comments from Federal Evaluators

On September 15, 2016, members of the Federal Evaluators network met with the Executive Director and Policy and Research Director for the Commission on Evidence-Based Policymaking at the Government Accountability Office (GAO) headquarters to discuss the Commission's planned work. (Federal Evaluators is an informal network of employees in the executive and legislative branches of the U.S. federal government.) Participants came from the Departments of Agriculture, Commerce, Education, Health and Human Services, Homeland Security, Housing and Urban Development, Labor, State, Transportation, and Veterans Affairs; GAO, the Congressional Research Service; Corporation for National and Community Service; Environmental Protection Agency; Holocaust Museum; National Endowment for the Arts; National Science Foundation; Office of Management and Budget (OMB); Office of Personnel Management (OPM); Peace Corps; and Small Business Administration. To encourage candid discussion, we agreed that participants would speak for themselves, not their agencies. These comments represent the opinions of individual attendees, not necessarily all.

This summary, prepared by GAO staff, organizes the issues raised around the questions posed by the Commission in a Request for Comments posted in the Federal Register on September 14, 2016 https://www.regulations.gov/document?D=USBC-2016-0003-0001.
This summary was shared with the full Federal Evaluators membership (about 1500) for additional comments, before being submitted to the Commission. The Commission staff announced the Commission's plans to conduct additional outreach to federal agencies and hold additional public hearings, and invited members to sign up for their listserv.

#1. *Are there successful frameworks, policies, practices and methods to overcome challenges related to evidence-building from state, local and/or international governments the Commission should consider...?*
   - See the following examples for lessons learned in using state datasets: Research Data Assistance Center for access to Medicare and Medicaid program claims data http://www.resdac.org/, Education's Race to the Top state grant program http://www2.ed.gov/programs/racetothetop/index.html , GAO analysis of states' use of American Recovery and Reinvestment Act grants. http://www.gao.gov/recovery/
   - The Institute of Medicine set up a framework for quality of care that has helped health care agencies focus their efforts. One aspect of that is identifying clear policy questions to focus on. Linking data is most successful when there is a strong policy question to answer.
   - The Inter-University Consortium for Political and Social Research (ICPSR) at the University of Michigan maintains a data archive of social science research files (including federal databases) since the 1960s and provides leadership and training in data access, curation, and analysis for the research community. http://www.icpsr.umich.edu/icpsrweb/
   - The Patient-Centered Outcomes Research Institute (PCORI) has established a national network for conducting comparative clinical effectiveness research by establishing a resource of clinical data gathered and stored in standardized formats. They have worked on the legal and ethical issues involved in data release, sensitivity, and security. www.pcori.org

Submitted 10/14/2016

#4. *What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, and analysis purposes?*
-   While the formally recognized statistical agencies have principles and practices in place to facilitate data sharing, most of the Departments and smaller agencies do not, so this would require a lot of training and rulemaking for the program offices who hold the data of interest.
-   Despite a congressional mandate for all foreign assistance agencies to supply data to a foreign assistance dashboard, agencies lack the money required to change their financial systems to produce about 40 percent of the required reporting elements.
-   Agencies will need to standardize or at least loosen restrictions on data access.

#5. *What challenges currently exist in linking state and local data to federal data?*
-   In social programs it is often local grantees that collect program performance data that are then aggregated at the state level for federal reporting. Issues of capacity to collect reliable data are compounded when sub-grantees are involved.
-   Local communities often need small area estimates for which there may be significant quality issues.

#7a. *What data should be included in a potential US government data clearinghouse(s)?*
[The Commission is aware that, under Open Data, agencies have inventoried over 70,000 datasets, with a potential additional 70,000 non-public datasets. This would be prohibitively difficult to work with so the Commission is considering creating a list of the top 20 to work with.]
-   Some of the most useful data for assessing program outcomes (health, education, employment and income status) are actually state data, not federal data. Accessing them requires separate negotiation with the individual states as well as addressing data compatibility across states.
-   Policymakers' needs should be more prominent in this discussion. GPRA's lesson was that supply was not as important as demand for use of evidence in decision making. What is the Hill's agenda and timing? What is the agency's evaluation agenda?
-   Agencies struggle with prioritizing evaluation questions, so the Commission could help by developing a framework for prioritizing evaluation questions.

#7b. *What are the current legal and administrative barriers to including such data in a clearinghouse or linking the data?*
-   Several databases contain highly sensitive national security data that do not seem appropriate for this use, or would require different security protocols.
-   Some programs (e.g., child welfare) explicitly prohibit releasing data with the personally identifiable information that is specifically required to link with other datasets.
-   Private sector companies lack a common identifier that can be used to link data on their contacts with various federal bureaus.
-   Data definitions, etc. vary tremendously across cash and food assistance programs. Data quality also varies across datasets, so what mechanism could we use to grade data quality, and to enforce data standardization?
-   The Department of Education requires the evaluator to demonstrate a valid educational purpose to combine their data with data from another federal program. This constrains the ability to examine cross-cutting issues.
-   The length of the Paperwork Reduction Act review process at OMB (for example, 2 years) is a considerable barrier to conducting evaluations in a timely manner.
-   Weak design and implementation of data quality controls; e.g., GAO recent assessment of the reliability of OPM payroll data. http://www.gao.gov/products/GAO-17-127

Submitted 10/14/2016

#8. *What factors or strategies should the Commission consider for how a clearinghouse could be self-funded?*
- Medicaid charges a federal agency $25,000 for access their claims data; non-government users pay more. Researchers consider this a barrier to use.

#10. *How should the Commission define "qualified researchers and institutions"?*
- The Centers for Medicare and Medicaid Services provide researchers with training and technical assistance and access to Medicare and Medicaid data through the Research Data Assistance Center (ResDAC) located at the University of Minnesota. http://www.resdac.org/ It has a "qualified entity program" defined by the Patient Protection and Affordable Care Act.
- Would government and non-government researchers and entities be treated alike?

#12. *If a clearinghouse were created, what types of restrictions ought to be placed on the uses of the data by "qualified researchers and institutions"?*
- Note that databases are typically created for specific uses and may not be appropriate for other uses. People outside the program can easily misinterpret data leading to misuse of data.
- See the procedures used by ICPSR (and other organizations described above) for managing access to restricted use datasets. https://www.icpsr.umich.edu/icpsrweb/content/ICPSR/access/restricted/index.html

#16. *How can data, statistics, results of research, and findings from evaluation be best used to improve policies and programs?*
- We appreciate the Commission's broad definition of "evidence", but it would also be useful to define "rigor" and "quality" of evidence, which involves data source, reliability, the rigor of the evaluation, internal and external validity, use of mixed methods. Note that program administrative data only pertain to program participants, and exclude nonparticipants which might form a proper comparison group with which to assess program effects.
- Beware that, in combining administrative data with other data, the quality of the data may be compromised.
- Please recognize that for data to become evidence there first needs to be a research question that determines how the data will be analyzed.
- There is very little guidance out there about how to use data or evidence to inform policy – how to analyze and use it.
- The intermediary step between having data and creating policy is the learning process. We use a variety of studies, both summative - to answer whether an approach works - and formative - to understand how an approach is implemented in practice.
- Local communities and federal agencies may have different questions and uses for data.

#17. *To what extent can or should program and policy evaluation be addressed in program design?*
- The best-known example is the tiered-evidence grants which provide more funding to expand approaches that have stronger evaluation evidence of effectiveness and less to programs with less or weaker evaluative evidence. There is concern that requiring prior evaluation evidence for funding could stifle program innovation.
- There is also a concern that these tiered-evidence programs tend to rely too narrowly on impact evaluations using experimental research designs. Such evidence of internal

3

validity is important but not sufficient for replication, scale-up (external validity assessment), and learning <u>how</u> the program works, and is often not appropriate for some types of prevention programs.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0010
Comment on FR Doc # 2016-22002

Submitter Information

Name: Christel Swasey
Address:
   Pleasant Grove - Utah, 84062
Email: 212christel@gmail.com

General Comment

Dear Commission on Evidence-Based Policymaking,

I love the American concept of voter-based, Constitution-based, elected representative-based, policymaking. It's why I live in America. In contrast to voter-based policymaking there is evidence-based policymaking, which I don't love because it implies that one entity's "evidence" trumps individuals' consent to new policy changes.

Former Secretary of Agriculture Ezra Taft Benson said something about education that also applies to educational data and policymaking:

"The best way to prevent a political faction or any small group of people from capturing control of the nation's educational system is to keep it decentralized into small local units... This may not be as efficient as one giant super educational system (although bigness is not necessarily efficient, either) but it is far more safe. There are other factors, too, in favor of local and independent school systems. First, they are more responsive to the needs and wishes of the parents and the community. The door to the school

superintendent's office is usually open to any parent [or teacher]... But the average citizen would be hard pressed to obtain more than a form letter reply from the national Commissioner of Education in Washington, D.C."

Local control, and consent of the governed, are two foundational principles in our great nation.

Because the CEP is not an elected body, it does not hold authority to collect, or to recommend collection, of student-level evidence, or of any evidence, without written consent; and, for the same reasons, neither does the Department of Education.

Because the fifty, federally-designed, evidence-collecting, State Longitudinal Database Systems never received any consent from the governed in any state to collect data on individuals (as the systems were put into place not by authority, but by grant money) it follows that the idea of having CEP study the possible removal of barriers to federal access of those databases, is an egregious overstep that even exceeds the overstep of the State Longitudinal Database Systems.

Because federal FERPA regulations altered the original protective intent of FERPA, and removed the mandate that governments must get parental (or adult student) consent for any use of student level data, it seems that the idea of having CEP study and possible influence removal of additional "barriers" to federal use of data, is another egregious overstep.

As a licensed teacher in the State of Utah; as co-founder of Utahns Against Common Core (UACC); as a mother of children who currently attend public, private and home schools; as acting president of the Utah Chapter of United States Parents Involved in Education (USPIE); as a patriot who believes in "consent of the governed" and in the principles of the U.S. Constitution; and, as a current tenth grade English teacher, I feel that my letter represents the will of many who stand opposed to the study of the removal of protective barriers on student-level data, which the CEP's website has outlined it will do.

I urge this commission to use its power to strengthen local control of data, meaning parental and teacher stewardship over student data, instead of aiming to broaden the numbers of people with access to personally identifiable student information to include government agencies and/or educational sales/research corporations such as Pearson, Microsoft, or the American Institutes for Research.

To remove barriers to federal access of student-level data only makes sense to a socialist who agrees with the Marc Tucker/Hillary Clinton 1998 vision of a cradle-to-grave nanny state with "large scale data management systems" that dismiss privacy as a relic in subservience to modern government. It does not make sense to those who cherish local control.

It is clear that there is a strong debate about local control and about consent of the governed, concerning data and concerning education in general. NCEE Chair Mark Tucker articulated one side of the debate when he said: "the United States will have to largely abandon the beloved emblem of American education: local control. If the goal is to greatly increase the capacity and authority of the state education agencies, much of the new authority will have to come at the expense of local control."

Does that statement match the philosophical stand of this commission? I hope not. Local control means individual control of one's own life. How would an individual control his or her own destiny if "large scale data management systems" in a cradle-to-grave system, like the one that Tucker and Clinton envisioned, override the right to personal privacy and local control? It is not possible.

I urge this commission to use any influence that it has to promote safekeeping of unit-record data at the parental and teacher level, where that authority rightly belongs.

Sincerely,

Christel Swasey

PUBLIC SUBMISSION

As of: August 04, 2017
Received: October 14, 2016
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Posted: November 16, 2016
Tracking No. 1k0-8sgr-pcca
Comments Due: December 14, 2016
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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0011
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I see that you've 'redacted' the previous six comments! At least you're reading them, but they're hidden which is censorship.

The constitution is still in effect at the moment, just a reminder.

Well, the short of what I have to say is, NO. I refuse the government agencies, state agencies, any agencies to gather data and / or ask my child questions relating to anything.

You do not have the authority to do so. The American public does not want you to.

What you're doing is illegal.

Here comes Donald Trump to the rescue, Thank GOD.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0012
Comment on FR Doc # 2016-22002

Submitter Information

Name: Lynne Taylor

General Comment

As an avid anti federal legislation in education researcher and writer, I find that this is not only, once again, a violation of our U.S. Constitution, but, frankly, a violation of ethics, morals, a our privacy. This Panel is too closely tied to the newly created public-private Artificial Intelligence Council of which you will find some of the same backers involved in this as well.

ESSA (Every Student Achieves Act) also rubber stamps MORE federally dictated/led education policy. Have we learned NOTHING in the past? It is not right, legal, or binding that the U.S. is making such global strides to not only data track and mine our citizens via education or our workforce! This moves are being made to rather satisfy an agreement made with the United Nations. We the people did not get to voice that we wish to remain American, not global citizens. Why do I bring this up? Education for all is among the Goals in the US/UN agreement. Again, no voice, no vote by the citizens.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0013
Comment on FR Doc # 2016-22002

Submitter Information

Name: JUdy Bergfield

General Comment

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As a licensed teacher in the State of Utah; as co-founder of Utahns Against Common Core (UACC); as a mother of children who currently attend public, private and home schools; as acting president of the Utah Chapter of United States Parents Involved in Education (USPIE); as a patriot who believes in "consent of the governed" and in the principles of the U.S. Constitution; and, as a current tenth grade English teacher, I feel that my letter represents the will of many who stand opposed to the "study" of the protective barriers on student-level data, which the CEP's website has outlined it will do.

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PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0014
Comment on FR Doc # 2016-22002

Submitter Information

Name: Laurel Haak
Address:
   Bethesda, 20817
Email: l.haak@orcid.org

General Comment

We all would like to better understand how innovation works, the better to support it. That requires both better access to information about R&D and a shift in our thinking about the role of researchers -- those at the heart of the innovation process. We need linked data infrastructures on the education, affiliations, funding, activities and outputs of researchers. ORCID identifiers provide the basis for such linking at a federal and international level. This can revolutionize our understanding of innovation and lead to more effective R&D policies and better government investments.

I am attaching a short document that provides more detail.

Attachments

ORCID comments to EBPC - 20161021

To: The Commission on Evidence-based Policy Making
Re: Docket Number 160907825–6825–01
From: Laurel Haak, Executive Director, ORCID, l.haak@orcid.org
Date: 21 October 2016

Abstract: We all would like to better understand how innovation works, the better to support it. That requires both better access to information about R&D and a shift in our thinking about the role of researchers -- those at the heart of the innovation process. We need linked data infrastructures on the education, affiliations, funding, activities and outputs of researchers. ORCID identifiers provide the basis for such linking at a federal and international level. This can revolutionize our understanding of innovation and lead to more effective R&D policies and better government investments.

Statement: There is broad international consensus that innovation and R&D matter for long-term economic growth and that innovation underpins many improvements in social, health and environmental outcomes. Governments play a key role in innovation by influencing framework conditions, setting policies, and providing funding assistance. The exact mechanisms, however, through which research, science and innovation lead to socioeconomic outcomes are not well understood. We need to better understand these interconnections and develop a robust theory of change, which can underpin government policies and investments.

Delivering on this aspiration requires governments to build local, national, and international data infrastructures for science and innovation. International standards, in particular, are essential given the global nature of science and the fact that the research community is highly mobile. Linked data on the funding of R&D and the outputs generated is a first step to building this infrastructure.

Data oversight and quality of federal support for R&D is poor. A recent paper by the National Science Foundation[1] highlights the poor state of federal data. This needs to be urgently rectified by developing standards for funding of R&D and federal agencies agreeing to implement these standards. Obtaining an accurate picture of federal investment in R&D is critical to developing understanding of how the innovation system works and generating evidence on return on investment. It is beholden on the federal government to present linked data on the investments it is making in the science and innovation system to the public.

Second, the outputs of the research and innovation system need to be systematically collected and linked back to funding sources. It is only when the key inputs and outputs are clearly linked that we can begin to understand how government policies and investments impact innovation. Aggregated data from across funding mechanisms and the various federal funding agencies will

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[1] Pece, 2016, Putting the Cart Before a Lame Horse: A Case Study for Future Initiatives to Automate the Use of Administrative Records for Reporting Government R&D. OECD Blue Sky Forum, Ghent, 19-21 September, 2016.

enable policymakers to determine the relative effectiveness and impacts of various investments and policy settings.

At the heart of the innovation process rests people. It is researchers who generate both incremental and transformative innovations. The researcher needs to therefore be at the heart of data infrastructures for research and innovation. ORCID identifiers provide that foundation. In 2012, ORCID launched a registry where researchers can obtain a unique identifier that they can use as they complete their theses, publish, apply for grants or submit reports as a student or employee at a research organization. These research "transactions" involve obtaining the consent of the researcher to both collect their identifier and share information about the activity or affiliation (Figure 1).
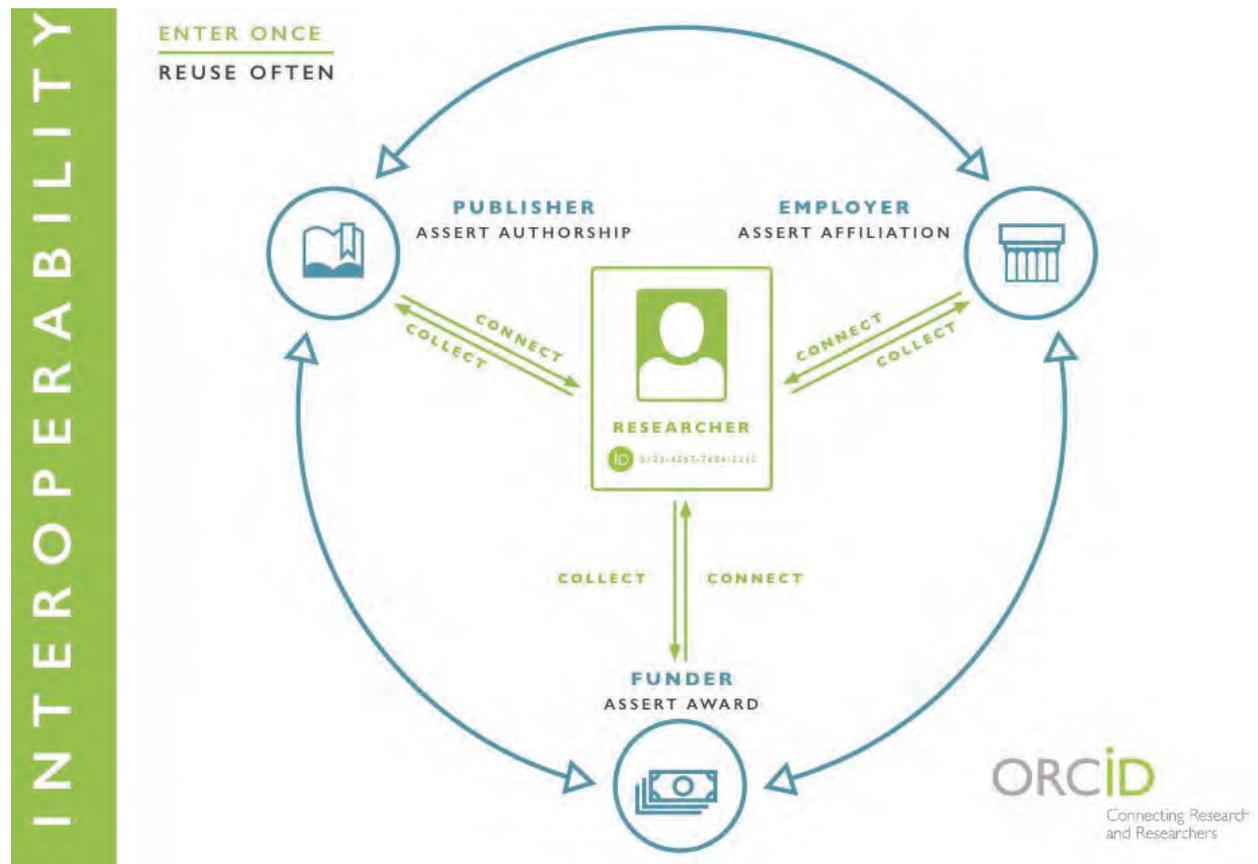
Figure 1. The ORCID vision starts with researchers, and involves the entire research community in collecting persistent identifiers, connecting them to activities and affiliations as researchers engage in these activities, and making public and verified assertions about relationships.

The ORCID registry has already issued more than 2.6 million identifiers around the world and uptake is rising fast. The ORCID system is now integrated with all of the world's major publishers, hundreds of universities and research organizations and more and more funding agencies. Some funding agencies, including the Portuguese Fundacao Ciencias e Technologia, the Swedish Research Council, Science Foundation Ireland, the UK National Institute for Health

Research and the US Department of Transportation have already mandated the use of ORCID identifiers.

ORCID is being adopted at a national level in countries across Europe and Oceania, and by funding organizations and publishers around the world. It is being used by funders and government agencies in the United States including NIH, DOE, EPA, and has been recognized by Science Europe - an association of European research funding organizations - as a key component of the research infrastructure.[2] In Australia, Europe, and the UK, ORCID is a component of their grant management programs.[3] In New Zealand ORCID will be a critical underpinning feature of the national data strategy for science and innovation which contains a vision of creating a national research information system which links data on funding, researchers, outputs and end user collaborations.[4]

Widespread use of ORCID identifiers around the world is paving the way for a global R&D data infrastructure. Unfortunately, federal agencies have been slow to see the potential of ORCID identifiers. ORCID is registered in the United States, yet few federal funding agencies have integrated ORCID identifiers into their systems. This needs to change if the United States government wishes to generate evidence on the impacts of its R&D investments.

Data specifically about researchers, for example detailed survey files managed by the National Science Foundation, or actual grant application and award data held by the National Institutes of Health[5], or administrative data held by universities relating to federally-funded projects[6], makes it possible to gain a much deeper and more nuanced understanding of innovation – and the impact of policies.

However, at present, it is very difficult to gain access to these individual-level data, as the researchers involved have not given permission for it to be disclosed beyond the agency or employer. This has necessitated the implementation of secure data centers, stringent access policies, and has restricted the types of analysis that can be performed.

However, it is possible to envision an open data infrastructure that would enable sharing of much of this data that is locked within agencies. Such an infrastructure is indeed becoming a

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[2] Science Europe, 2016. Draft proposal for a Science Europe position statement on research information systems. OECD Blue Sky Forum, Ghent, 19-21 September.
[3] Australian Government, 2015. NHMRC and ARC Statement on Open Researcher and Contributor ID (ORCID); Townsend, 2015. We're now a member of ORCID. Research Councils UK Blog; Ministry of Business, Innovation, and Employment, 2016. ORCID Joint Statement of Principle; European Commission, 2016, H2020 Programme guidelines on open access to scientific publications and research data in Horizon 2020.
[4] Ministry of Business, innovation, and Employment, 2016, Research, Science, and Innovation Domain Plan.
[5] Haak et al., 2011, The electronic Scientific Portfolio Assistant: Integrating scientific knowledge databases to support program impact assessment. Science and Public Policy 39:464; Ginther et al, 2011, Race, Ethnicity, and NIH Research Awards. Science 333:1015; NIH, 2011, Individual Mentored Career Development Awards Program Evaluation; Haak et al., 2011, The electronic Scientific Portfolio Assistant: Integrating scientific knowledge databases to support program impact assessment. Science and Public Policy 39:464.
[6] Largent and Lane, 2012, STAR Metrics and the Science of Science Policy. Research Policy 29:431.

reality at an international scale,[7] supported by an evolving community consensus on FAIR data management principles.[8] It is based on persistent identifiers, community participation, and the consent of individuals in sharing their information.[9] ORCID has emerged as the global standard for identifiers for researchers. Persistent identifiers (digital object identifiers) for research articles and datasets have been in place for over a decade. It is now a standard practice for DOIs to be assigned to articles and datasets as they are published, and these identifiers underpin search and discovery of tens of millions of items in the research literature. DOI assignment is managed by two non-profit organizations, CrossRef (crossref.org) and DataCite (datacite.org).

With my colleagues at Crossref and DataCite, I ask that the Committee consider the role that persistent identifiers can play in improving data on the inputs and outputs of the research and innovation ecosystem. I strongly encourage you to consider the essential role of researchers: they must be included as partners in any initiative to share research information. I also encourage the Committee to open up the funding of R&D by federal agencies and develop data standards to enable data aggregation. Naturally, we believe that all federal agencies should integrate their systems with ORCID.

As Robert Oppenheimer said, "The best way to send information is to wrap it up in a person." As we use person-level data to understand innovation, we can demonstrate the verity of this statement.[10] The more ways that individual researchers can connect their unique identifier to activities and affiliations, the more we will understand the flow of knowledge underpinning innovation and develop appropriate policies to support it.

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[7] Porter, 2016, Digital Science White Paper: A New 'Research Data Mechanics'

[8] Wilkinson et al., 2016, The FAIR guiding principles for scientific data management and stewardship. Scientific Data 3:16008.

[9] Haak et al., 2012, Information science. Standards and infrastructure for innovation data exchange. Science 338:196

[10] Zolas et al., 2016, Wrapping it up in a person: Examining employment and earnings outcomes for Ph.D. recipients. Science 350-1367.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0015
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

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Authority regarding the management of data belongs at the local level - not the federal level.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0016
Comment on FR Doc # 2016-22002

Submitter Information

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  College Park, MD, 20742
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General Comment

See attached file(s)

Attachments

Comments_SOCN_Oct25_2016

UNIVERSITY OF MARYLAND
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Commission on Evidence-Based Policymaking Comments

Sandra Hofferth, PhD, Professor Emerita and Research Professor
Principal Investigator, Social Observatories Coordinating Network*
Maryland Population Research Center, University of Maryland, College Park 20742
301-405-6403, Hofferth@umd.edu
October 25, 2016

Overarching Questions

> 1. Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

There are several ongoing privately sponsored community-based programs that link data across local, state, and national levels. An ongoing project at the University of Chicago (Goerge, 2013) provides an example of evidence-building that could be advanced more effectively and scaled to greater impact by facilitating data sharing. For the past 30 years, researchers have been laboriously compiling a database with anonymized information on Chicago's children from information housed at multiple state and local agencies, including schools, social services, and criminal justice. Combined with contextual information (e.g., census tracts, city administrative districts), geographical areas where resources could be targeted to improve family well-being and reduce dependence on public services can be identified. Parallel work at the University of Chicago's Urban Center for Computation and Data shows how such data could be acquired, anonymized, and georeferenced more efficiently by synthesizing digital data streams from diverse administrative databases. The Chicago work shows the potential utility of such efforts for providing services to citizens.

A second effort is entitled the National Neighborhood Indicators Partnership (Kingsley & Pettit, 2011). In this collaborative effort between the Urban Institute and 37 cities, all partners build and operate neighborhood level information systems, drawing upon administrative data from multiple sources. Data on employment, Births, deaths, Crimes, TANF, Food Stamps, Child care, Health, and schools are merged with property, tax, and infrastructure quality information. Activities consist of continuous indicator review and dissemination of information over the web. Indicators at the city or metro-wide level can be used to change laws and policies; for geographic targeting/coordination of resources for programs and investments; for individual neighborhood improvement initiatives; for performance management; and for program evaluation.   The types of data include national data files –e.g., American Community Survey; open data – government administrative data; and integrated data systems. One important substantive area studied was the effect of foreclosures on children. One program linked foreclosures in

neighborhoods to the number of children in those areas. They did this by linking parcel level data on properties and neighborhood level data.

2. Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?

The two critical factors are potential risk of disclosure and degree of harm that could follow. First, how likely is it that someone could be identified given the data available? Second, how serious is the harm that would be occasioned?

In a book *Privacy, Big Data, and the Public Good: Frameworks for Engagement*, Julia Lane and colleagues (2014), describe the importance of balancing data utility for the public good against disclosure risk. One of the most important potential risks is that of disclosing the geographic location of individuals whose data are held, and, therefore, potentially disclosing their actual identity. This risk collides head on with our understanding of the critical part that residence plays in access to quality public and private services, governance, and community amenities, and risk of weather-related and other events.

A second area of potential risk could occur when data sets are linked or combined, depending on the types and level of information contained in the different data sets. However, the main advantage of linking is that of efficiency; once the possibility of linking is available, data collectors need to add only the data elements not otherwise available.

Data Infrastructure and Access

3. Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?

Major types of structures for data sharing include release of public use data, access to a research data center in which the researcher can access but not remove data, provision of a license or contract to obtain restricted files, release of synthetic files in which some data are altered, access to a government employee who actually runs analysis software on the data, and a data enclave in which data are accessed remotely. At the present time the National Center for Health Statistics (NCHS) uses several models: data are divided by level of risk. Low risk data are released on-line as public data files. Descriptors of geographic location are not released in these public data files. To obtain geographic information on state of birth, for example, an application needs to be submitted to NCHS. The NCHS will release the geographic data after the application is approved. Because only data at the state level are released, and the state numbers are large, the risk of individual identification is low.

Data with greater risk of individual identification or disclosure, such as geographic location at the county or census tract level, have a higher bar for sharing. For them, the NCHS uses the Census Bureau Research Data Center (RDC) model, a physical location in which researchers can securely access confidential data. For example, researchers can access securely the geographic location of participants and merge onto their data files information about that geographic location. The actual geographic location can be removed from files once this other information is attached. The data on the file retain

confidentiality. Other types of data can be linked as long as there are restrictions on how data sets can be linked and what types of information can be made available to researchers.

Given new technology, a large dedicated physical structure becomes less necessary. Instead, the data enclave model seems to be the most feasible and practical. The enclave does not need to actually have possession of the data, simply a secure connection to the organization that does.

> 4. What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation, and analysis purposes?

The federal government has legal restrictions on data sharing. An efficient way to improve access would be for the federal government to contract with a private data center to oversee and monitor the process of reviewing requests for data access, setting up specialized data, and reviewing and monitoring data users. A number of such data centers are currently in place.   The Research Data Centers (RDC) of the U.S. Census Bureau are examples; however, in this case employees need to be Census Bureau employees, a very restrictive management model and quite expensive. In addition, data are actually accessed in the RDC.

As an alternative model, access could be provided through a private data center, but the data sets could be housed with their original proprietors. In this model, a center would help identify data needed by a prospective researcher. The center would be charged with having a record of the type of confidentiality protection required by the data provider and would broker access to the data. Access could be obtained remotely through the data center. The researcher may wish to have access to data with differential restrictions on access; the data center could handle this process so that the individual could access, merge the data and analyze the data for scientific purposes with approved access protocols administered by this single organization.

> 5. What challenges currently exist in linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

Because such initiatives are so important, why have they not happened more broadly?   This is partly because agencies, levels of government, professionals, and advocates work in silos that prevent putting together comprehensive data in a format conducive to research and analysis. Integration and collaboration are critical for putting the information together.   With increased concern about confidentiality and identity theft, some of the biggest obstacles are in putting together complex data sharing agreements. More resources could be spent to develop model examples of such agreements that could be widely used. A network of regional data centers that utilizes and shares these models would be an enormous contribution. At the moment there is substantial expertise in different areas of the country, but no concerted effort to learn and share experiences, in spite of the increasing interest in addressing the obstacles to data sharing and encouragement by many federal agencies in increasing the usage of administrative and other data.

6. Should a single or multiple clearinghouse(s) for administrative and survey data be established to improve evidence-based policymaking? What benefits or limitations are likely to be encountered in either approach?

In a series of meetings conducted by the Social Observatories Coordinating Network over the past three years (see materials at socialobservatories.org), the network settled on a challenge for the future— to design a national network of regional data centers that could be coordinated through common objectives, sharing of protocols, and data sharing (Moran et al. 2014). The network concluded that behavior is so situation- and place-specific that it is practically impossible to use widely dispersed national samples of populations to draw conclusions about processes in any one place. Based upon extensive discussion and consultation with statisticians, our model would embed in a set of 20-25 regional observatories or data centers a nationally representative population-based sample from about 400 census tracts that would enable the observatory data to be aggregated in such a way as to produce a nationally representative picture of the United States on an ongoing basis while also fully capturing the diversity that characterizes local places. Each would be an entity, whether physical or virtual, that is charged with collecting, curating, and disseminating data from people, places, and institutions in the United States. Each of these data centers would be responsible for gathering information from a set of tracts that are located in proximity to their collaborating scientists and other information from their local community. The individuals, institutions and communities in which these census tracts are embedded can be systematically studied over time and space by regional data centers and the data would represent the U.S. as a whole.

7. What data should be included in a potential U.S. government data clearinghouse(s)? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

Each data center would be charged with cataloging and providing access to data collected and archived from the local area as well as data that may be national in scope. They are also intended to stimulate the development of new directions and modes of inquiry. They will do so through the use of diverse complementary methods and data sources including ethnography, experiments, administrative data, social media, biomarkers, and financial, land, environment, and public health records as well as survey research. These observatories will work closely with local and state governments to gain access to administrative records that provide extensive data on the population in those tracts, thereby providing a depth of understanding and integration of knowledge that is less invasive and less subject to declining response rates than survey-derived data. Starting with a single such data center charged with setting up confidential data agreements and facilitating access would be a pathway to such a network. This initial national data center, as test of the framework, can serve as a pilot for the larger network of centers needed to meet national needs.

Data are collected by private parties such as Twitter, eBay, Netflix, LinkedIn, Facebook, and others. Many of these companies make their data available to researchers under contract.   When combined with other private data or other public surveys and administrative data sets, these data could be very useful but their use poses some very challenging privacy and security issues.

Traditional forensic lab data along with emergency calls, and Google Trend or Twitter data can be used for emerging disease or drug trends.

> 8. What factors or strategies should the Commission consider for how a clearinghouse(s) could be self-funded? What successful examples exist for self-financing related to similar purposes?

One such effort is located in the Urban Center for Computation and Data at the University of Chicago; 18 different organizations and multiple individuals are involved (Goerge, 2013). Data come from 311 service requests, 911 calls, and other public and private data bases. This group is taking the data and making them accessible to the community. Existing software programs extract data coming out of the continuously updated grid to create analysis files. With additional resources the data bases currently developed could be continuously updated and transferred to a data portal that multiple partners could access in real time. This would permit city officials to use their administrative data to better target resources. Social media data could be geographically linked so that police and social workers would be aware of potential problems at locations in the city even prior to or during adverse environmental and social events. With additional resources they would be able to follow children from different environmental locations into adolescence, linking data from public school and education records and then adulthood, linking employment and wage data from national data bases. Such centers could also develop and archive data from evidence-based program evaluations that are increasingly required by federal agencies.

A data clearinghouse is not initially self-fundable but requires a consortium of private and public sources of support on behalf of the national statistical system and scientific enterprise similar to the city-focused model represented by Chicago. This would most likely require substantial federal seed money through grants to get it off the ground, but the model could eventually be integrated into regional statistical systems, local governmental budgets, and private funding partnerships.

The National Neighborhood Indicators Project (NNIP) started in 1995 with 6 institutions that had put together data sharing arrangements in their cities. Today this neighborhood indicators partnership has expanded to 37 cities and 12 more are talking about joining. These include community and social service nonprofits, university, metropolitan planning agencies, and foundations; all have a substantial community involvement component, i.e. they are close to the stakeholders. Data are used for performance measurement, management and policy analysis.

> 9. What specific administrative or legal barriers currently exist for accessing survey and administrative data?

These barriers will vary across administrative areas such as states, counties, and cities, thus fitting with the proposed regional focus of such data centers. Each center will be attuned to local issues and administrative concerns. In addition to the confidentiality issue, an underlying barrier, and justification for regional focus, is that formats are often incompatible. Whereas a regional center can link at the local level, such centers will have the resources to figure out how to link across centers to provide a national picture.

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10. How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions?"

Most public access data shops request researchers to fill out a form that describes the research project for which they are requesting access to data.   In 25 words or so, it is fairly straightforward to describe and then determine whether this is a legitimate project. Plus contact information from the potential user is required. We have had requests from clearly illegitimate "bots".   Those are easy to sort out.

Adding the requirement to fill in a randomly generated passcode is also helpful.

11. How might integration of administrative and survey data in a clearinghouse affect the risk of unintentional or unauthorized access or release of personally-identifiable information, confidential business information, or other identifiable records? How can identifiable information be best protected to ensure the privacy and confidentiality of individual or business data in a clearinghouse?

Because we are recommending that this data center not actually hold the data, but rather serve as a portal to access data, we imagine that the organization/entity will be charged with implementing a variety of different types of data confidentiality provisions and licenses. Having a single entity charged with implementing a set of confidentiality protections for access to data through a single portal is efficient. There is sufficient expertise in the social science community to put those protections in place. There has never been a data breach in the existing data centers to date.

12. If a clearinghouse were created, what types of restrictions should be placed on the uses of data in the clearinghouse by "qualified researchers and institutions?"

This would depend upon the organization providing access to the actual data.

13. What technological solutions from government or the private sector are relevant for facilitating data sharing and management?

A set of private data centers could involve private industry such as Google, Facebook, Twitter, etc. who have already been addressing these issues. Participation from these sophisticated technology companies is essential but they need the participation of qualified researchers and institutions in universities to better identify the important questions about our society and contextual variables to include.

14. What incentives may best facilitate interagency sharing of information to improve programmatic effectiveness and enhance data accuracy and comprehensiveness?

The best incentive would be the actual productive use of data they generate. Too much of the data collected by local, state and federal agencies remains archived and unused. Making these data available would constitute a more efficient use of resources and may obviate the need for other forms of data collection which may be more invasive. However, additionally, having a private non-government entity

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funded and charged with the proper protection of the data and facilitating access to approved individuals, would also be an incentive.

Data Use in Program Design, Management, Research, Evaluation, and Analysis

15. What barriers currently exist for using survey and administrative data to support program management and/or evaluation activities?

Barriers to entry in terms of knowing how to access data and then gaining such access are substantial in both time and money. Census Bureau access through a Research Data Center requires a full proposal and then about $15,000 in research funds unless the investigator has access to an RDC at his/her institution.

16. How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?

A national framework for studying local contexts may be the best way forward. The best neighborhood studies to date feature specific cities such as Chicago or Los Angeles. The observatories will facilitate comparison across such communities. With a regional data center network, we can contemplate the possibility of a national sample of neighborhood and other local contexts that can be studied at multiple levels and in multiple ways. For example, because of the national sample frame of census tracts embedded in them, these observatories become ideal locales to examine how proximal social contexts (a) directly affect individuals' and families' social, behavioral and economic functioning or (b) alter social and behavioral relationships, and (c) how individuals and families, in turn, change their environments. The community context will enable the study of social networks, which cannot be studied within the current survey research model in which clustering of observation is minimal. It also increases the chance of linking climate change and other natural phenomena with behavioral responses. Naturally occurring exogenous shocks to some tracts but not all tracts will provide the opportunity for scientists to conduct comparative studies of adaptation and change. Similarly, a set of experimental trials situated in diverse contexts will afford researchers the opportunity to conduct rigorous comparative studies of interventions.

17. To what extent can or should program and policy evaluation be addressed in program designs?

One limitation of program evaluations is that they may be tested in one region of the country and not in others. The proposed infrastructure permits comparisons across communities. Program evaluation data should be part of this new set of regional data centers. The advantage of having a network is that projects will be encouraged to replicate their evaluations on programs spread across the U.S. This would enable researchers to see whether program success varies across the U.S.   Evaluations of responsible fatherhood initiatives varied across program locations, for example.

18. How can or should program evaluation be incorporated into program designs? What specific examples demonstrate where evaluation has been successfully incorporated in program designs?

No comment.

19. To what extent should evaluations specifically with either experimental (sometimes referred to as "randomized control trials") or quasi-experimental designs be institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?

No comment.

*The Social Observatories Coordinating Network

The Social Observatories Coordinating Network (SOCN) is funded by the National Science Foundation to work with scientific communities in the development and planning of a set of observatories for the Social, Behavioral, and Economic (SBE) Sciences that will be transformative. This network follows up on a set of 4 workshops prior to 2010 and 4 from 2010 to 2012 that engaged the scientific community in initial discussions about the proposed approach. (Reports from the 2010-2012 meetings are available at the website below.) Dissemination of what we produce will play an important role, particularly at national professional meetings and other scientific conferences. The final product will be a report to NSF outlining the views of the various scientific communities and the consensus emerging from these discussions.

Members of the NSF Social Observatories Coordinating Network include:

J. Lawrence Aber, New York University
Henry E. Brady, University of California, Berkeley
Dalton Conley, New York University
Susan Cutter, University of South Carolina
Catherine Eckel, Texas A & M University
Barbara Entwisle, University of North Carolina
Sandra Hofferth, University of Maryland
Klaus Hubacek, University of Maryland
Emilio Moran, Michigan State University

A complete list of earlier contributors to this project can be found at the website below.

For additional information contact:

Sandra Hofferth: hofferth@umd.edu or

Emilio Moran: moranef@msu.edu

Our objectives and reports from previous meetings are available at:

http://socialobservatories.org/

References

Goerge, Robert. 2013. Presentation to Social Observatories Coordinating Network, May 8-9. Summary report available on http://Socialobservatories.org/reports.

Kingsley, G. Thomas & Kathryn L.S. Pettit, 2011. Quality of Life at a Finer Grain: The National Neighborhood Indicators Partnership, Chapter 4 in M.J. Sirgy et al. (eds.), *Community Quality-of-Life Indicators: Best Cases V*, Community Quality-of-Life Indicators 3, DOI 10.1007/978-94-007-0535-7_4.

Lane, Julia, Victoria Stodden, Stefan Bender, & Helen Nissenbaum. 2014. *Privacy, Big Data, and the Public Good: Frameworks for Engagement*, Cambridge, UK: Cambridge University Press.

Moran, E.F., et al. 2014.   Building a 21st century infrastructure for the social sciences. *Proceedings of the National Academy of Sciences*, November 11, vol. 111, no. 45, 15855–15856. (www.pnas.org/cgi/doi/10.1073/pnas.1416561111).

PUBLIC SUBMISSION

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Comments Due: December 14, 2016
Submission Type: Web

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0017
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I am AGAINST the government collecting private information from students and others without the consent of someone who is of legal age to give said consent. Citizens have the right to keep their information private.

PUBLIC SUBMISSION

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0018
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

NO, NEVER, NOT AT ALL. DEFINITELY NOT!

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0019
Comment on FR Doc # 2016-22002

Submitter Information

Name: Doug Schofield
Address:
   Rochester, NY, 14607
Email: Doug@SexAndVirginity.com

General Comment

Hi,
We are a non profit that shows the advantages of saving sex for a commitment. The women that we have shared our information with either waited to have sex until they were engaged to be married or are currently in a long term relationship but still saving sex for a major commitment like marriage/engagement. This was achieved by sharing with them a few surveys that we conducted that shows that...

1 Most men prefer virginity in the woman they marry.

2 Having sex with a man doesn't help him fall in love, make a woman more special to him or even guarantee a commitment will follow.

3 If a man is using a woman for sex, it is very unlikely that she will get a commitment.

4 When a man has serious intentions for a woman he will wait significantly longer for sex than if he intends to just use her for sex.

My wife develops scientific studies for Neilsen. And together we put together 3 small surveys that asks men questions that women want to know. For example, We just completed using Survey Monkey with 110 men, ages 18 to 29 in USA and found that...

3 out of 4 heterosexual men answered either Somewhat good or Very Good to the question "How would you feel if the woman you marry previously had never had sexual intercourse with another man" with the majority answering Very Good.

78% of heterosexual men said that it would bother them when asked "How would you feel if the woman you marry had sexual intercourse quickly with the men that she previously dated" with the majority saying that it would bother them a lot.

2 out of 3 heterosexual men answered Zero to the question "Would you prefer the woman you marry to have previously had zero sex partners or more than zero sex partners"

We had to pay for this out of our own pocket ($770). Zogby said they would replicate this study for $8,950. If we could just get funding, this information would have national visibility. On our small scale this worked. But we need help to take this to the next step.

-Doug Schofield
www.SexAndVirginity.com

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0020
Comment on FR Doc # 2016-22002

Submitter Information

Name: Lisa Vavrik

General Comment

I am not comfortable with everything about a student and their family being loaded on a data base right down to a students social media comments and social security number. This is new terrain and way to soon to run experiments with children's lives. We know all the data breaches that have taken place and can only imagine how putting personal information on a data base could turn out.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0021
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

The government is getting out of hand. We pay taxes for you to serve us not control us.
PEOPLE are waking up to your tyranny and we are not happy.

PUBLIC SUBMISSION

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0022
Comment on FR Doc # 2016-22002

Submitter Information

Name: Christine Runquist

General Comment

We Oppose the National Student Tracking Database.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0023
Comment on FR Doc # 2016-22002

Submitter Information

Name: Jennifer Klein

General Comment

I am against the over-reaching collection of data on our children. When is enough enough? Never for these groups advocating for more and more data. Why? Are they really concerned about our children or more concerned about profiling them and making a lot of money off this sensitive data. The SLDS are too intrusive the way they are now. Why expand the information in them. I don't want my kids tracked from cradle to grave. Please start protecting them as this data is never safe from breaches and the more data you have on everyone, the more dangerous it is for our kids safety. Time to start protecting people's privacy.

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0024
Comment on FR Doc # 2016-22002

Submitter Information

Name: Susan Bella

General Comment

I am wholly against creating a national database made up of the combination of many federal agencies for use in student data tracking. it is a violation of our privacy, and it can lead to massive misuse of data through unauthorized and unethical studies. It goes against the Institutional Review Board guidelines for human studies. Unscrupulous researchers can use data to create outcomes that suit their agenda. Algorithms are often wrong, and can be skewed to produce a specific goal and there is no oversight.

I respectfully ask that the ban on a national database on our citizens continue to be banned and not allowed under ANY circumstances.

PUBLIC SUBMISSION

As of: August 04, 2017
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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0025
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Don't do this. Do the right thing.

PUBLIC SUBMISSION

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Submission Type: Web

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0026
Comment on FR Doc # 2016-22002

Submitter Information

Name: Cheri Kiesecker
Address: United States,
Email: ckiesecker@gmail.com

General Comment

See attached file(s)

Please see attached file for comment: parent comment to CEP_ck
Thank you

Attachments

Parent comment to CEP_ck

November 1, 2016

To the Comments to Commission on Evidence-Based Policy.
https://www.regulations.gov/document?D=USBC-2016-0003-0001

I am a parent, only a parent, but I hope the commission will consider my testimony with the same weight you give others who have a louder, perhaps more "important" voice.   Parents deserve to have a voice in matters involving children.

In the rush to collect and report student data, <u>WHO is auditing the data for accuracy</u>?

There are cases of KNOWN data erros being submitted.   The US Dept of Ed, Office of Civil Rights admits there is not sufficient protocol to verify data is correct and **according to State Dept of Ed, Office of Civil Rights**, **it is too burdensome to correct known data errors**.   **See news article and email exchange with US OCR**:   **http://tinyurl.com/zc9blg4**

How often do data errors like this happen? How would students know if incorrect data were being reported or inferred about them?   What decisions are being made based on inaccurate data?   The FTC has noted the lack of transparency / laws governing algorithms and   data brokers.

<u>NO transparency on algorithms.</u>

WHO is able to verify that analysis of data is not biased, when algorithms are kept secret, proprietary?   Unless students can see data being collected or inferred about them, the data should not be collected or shared. (FIPS, Nuremberg)

<u>Ethics and IRB's.</u>

Several presenters at the Oct. 21 Commission Education-based Policy hearing   mentioned that IRB reviews are hampering their data access.   **IRBs are essential in ensuring ethical use of data.**   Are those wanting access to data hoping to avoid *independent* analysis of their legitimate need and use of children's data?

<u>Security concerns abound.</u>

There are no enforceable penalties,   no parent right of action for misuse or breach of data, and the federal government has a shocking track record on data security. (OPM breach, http://www.reuters.com/article/us-cybersecurity-usa-idUSKCN0PJ2M420150709   and   the Vitara rating of F, over 400 repeat incidents in US Dept of Ed 2015 audit https://oversight.house.gov/hearing/u-s-department-of-education-information-security-review/ .)   Allowing the federal government even more access to student data, knowing these substantial deficiencies exist,   would be negligent.

The data collected and shared from ed records or SLDS is NOT just grades.

> Under the School Exemption Clause of FERPA, access to pii data contained in a student's education record or state longitudinal data base (SLDS) can be shared.   For a snapshot of pii data shared with researchers, see examples from the Colorado Dept. of Education research contracts here **http://tinyurl.com/he8z2yv**

> You will need to scroll through contracts to find data sharing section.   ie: see this contract with AIR,   (Appendix A) which allows access to pii educational records:
> **http://tinyurl.com/gnqt5ae**

SEL and 21st Century Skills.

> Teachers are required to upload ever increasing amounts of data, including behavioral and survey data, examples of how a student thinks, how a student feels (21st century social emotional skills.)   See one such survey here:
> https://drive.google.com/open?id=0B7epgdVXe0gKRm94TEt2aDVsQjA   This is subjective data at best, not to mention highly personal.   IS IT ETHICAL to allow behavioral and emotional data to be measured and shared outside of the classroom?   HOW will this information be used to profile or predict a child?   Considering that students' emotions will be measured and standardized / ranked in the near future,   access to personal student records needs to be better constrained, not broadened.
> http://blogs.edweek.org/edweek/rulesforengagement/2016/09/commission_formed_to_advance_schools_focus_on_social_emotional_development.html

A national Unit Record will Link   k12-to Higher ed data

Unless   you explictly prohibit in future statute, opening the higher ed student unit record   will lead to access to k12 ed record and K12 data, linking   data between agencies and programs.   The WDQI US Dept of Labor plans to access individual, pii, K12   student data, stored in state SLDS databases, starting in pre-school. SEE HERE:

http://tinyurl.com/ho9m9gq   https://www.doleta.gov/performance/workforcedataquality.cfm

Many panelists testifying in support of the unit record at the October 21, 2016 CEP hearing,   also propose accessing this K12 data.   For example, but not limited to, Rachel Zinn from the Workforce Data Quality Campaign, David Medina from the Results for America, Actionable Intelligence for Social Policy (AISP) America Forward Center for Employment Opportunities Center for Research and Reform in Education, Johns Hopkins University, KIPP, REDF, Sorenson Center for Impact Success for All Foundation Sunlight Foundation:

> **Medina testimony: "State Education and Workforce Data Systems**: The Commission **should recommend that Congress and the Administration support the enhancement of the existing State Longitudinal Data Systems (SLDS)** program administered by the U.S. Department of Education, which helps states integrate **education and workforce data, and the proposed expansion of the Workforce Data Quality Initiative*** that would help build state and local capacity to track employment and educational outcomes" CEP Hearing- Oct 21, 2016

Linking higher ed and K12 student data (K12 SLDS data systems) has long been the

goal: *Student data systems unite!-*2010
https://www.insidehighered.com/news/2010/02/16/data but has always been rejected due
to privacy or cost concerns.

  Bill Gates' recently released **2016 Priorities Report**, also stresses goal of linking K12 - Higher
Ed data, in a national database:

> Bill Gates: "Continue to develop robust state data systems that connect disparate higher
> education systems within and across states, including non-public institutions, and
> **improve linkages between higher education, K-12, and workforce data** to facilitate
> the timely and safe exchange of data for decision-making by educators and policymakers.
>
> **Develop a comprehensive national data system or exchange** that would expand
> coverage and quality by collecting a key set of performance metrics for all students in all
> institutions. Such a system or exchange would also alleviate reporting burden and reduce
> duplication by leveraging existing state and national data collections and would require
> revising data privacy and security protocols to ensure compliance with state and federal
> laws, as well as accepted standards and practices in the field. Options range from
> improving IPEDS to creating a **federal student-level data system**."
> http://postsecondary.gatesfoundation.org/wp-content/uploads/2016/09/PostsecondarySuc
> cessAdvocacyPriorities2016.pdf

There is a reason this national student database has been banned for years.

Some data should not be mixed. Data collection is **much more pervasive – and much less
controlled – than people realize.** Algorithms are often **biased and wrong**. There is no way for
a student to know how his/her data is being used against him/her or to know what opportunities
were denied based on this shared data.
http://www.fastcoexist.com/3057514/your-data-footprint-is-affecting-your-life-in-ways-you-cant
-even-imagine

> "I think the opportunity is a rich one. At the same time, the ethical considerations need to
> be guiding us," says Jesse Russell, chief program officer at the National Council on
> Crime and Delinquency, who has followed the use of predictive analytics in child
> protective services. Officials, he says, are treading carefully **before using data to make
> decisions about individuals, especially when the consequences of being wrong—such
> as taking a child out of his or her home unnecessarily—are huge**. **And while
> caseworker decision-making can be flawed or biased, so can the programs that
> humans design**. When you rely too much on data—if the data is flawed or incomplete, as
> could be the case in predictive policing—you risk further validating bad decisions or
> existing biases. **There's this danger we lose our identity as people and we become
> categories**."

Until there are LAWS and enforceable PENALTIES that restrict how data is collected, how it is shared, mixed, and transparency around algorithms and ways to audit and regulate the data analytics used to profile and predict a person, there should be no expansion of data collection.

Rather, people should own their own data and as in Europe, large agencies, nonprofits and corporations should not have access to children's personal data without consent.

Thank you for NOT creating a national student database that would increase risk for all stakeholders, especially the children you are meant to protect.

Thank you,

Cheri Kiesecker, parent

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0027
Comment on FR Doc # 2016-22002

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General Comment

See attached file(s)

Attachments

Comments Offered to the Commission on Evidence

COMMENTS OFFERED TO THE COMMISSION ON EVIDENCE- BASED POLICY
November 1, 2016

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The first section of these comments addresses the "Overarching Questions," and questions concerning "Data Use in Program Design, Management, Research, Evaluation, and Analysis" posed by the Commission. These comments are more fully elaborated in my book, *"Proof," Policy, and Practice: Understanding the Role of Evidence in Improving Education.* (2016. Stylus Publishing, Sterling, VA.) The second section will address specific questions concerning "Data Infrastructure and Access."

Although representing only my own views, my comments reflect my work experience and service in the following roles: Deputy Director, Illinois Board of Higher Education, Director of Program Evaluation and Vice President for Human and Community Development, John D. and Catherine T. MacArthur Foundation, President, State Higher Education Executive Officers association, and governing or advisory board member for the National Student Clearinghouse, National Survey of Student Engagement, National Institute for Learning Outcomes Assessment, and Parcc, Inc.

OVERARCHING QUESTIONS AND DATA USE IN PROGRAM DESIGN, MANAGEMENT, RESEARCH, EVALUATION, AND ANALYSIS

1. The proper use of evidence is essential for improving both policy and practice. But the complexity and variety of most situations confronted by policy makers and practitioners, pose serious challenges for the proper use of evidence. These challenges must be well-understood in order to avoid wasteful, unproductive effort and superficial "evidence," which can be ineffective, misleading, or even harmful.

    Chapter One, of *"Proof," Policy, and Practice* sets the stage for subsequent chapters of the book by discussing the difficulty of generating authoritative scientific knowledge in the situations faced by policy makers and practitioners. It draws largely on *Consilience* by E.O. Wilson, "Science and Complexity" by Warren Weaver, *Useful Knowledge* by Charles Lindblom and David Cohen, and *Unsimple Truths: Science, Complexity, and Policy*, by Sandra Mitchell.

2. Experimental methods, such as randomized clinical trials (RCT), are excellent tools for addressing problems with a relatively simple cause, which can be ameliorated with a straightforward, relatively simple intervention.

Unfortunately, few problems in social policy (especially perhaps, in education) are "conceptually neat," a term coined by Donald Berwick, a leader in the application of improvement science to the delivery of health care. Nearly half a century of efforts to use experimental methods in program evaluation have demonstrated most forcefully the inadequacy, rather than the utility of experimental methods to provide clear guidance for evaluating and improving complex programs to address complex problems.

Chapter Two summarizes major contributions to and debates within the field of program evaluation and offers a critical analysis of the Institute for Education Science's "What Works Clearinghouse," and work by MDRC.[i] It considers the particular case of Success for All, a multifaceted and thoroughly designed educational program, which has been positively evaluated, but has proved difficult to replicate widely. It provides examples of "conceptually neat" problems under which RCTs can make important contributions, such as: a study of the effects of providing guidance in completing Pell Grant applications in the course of tax preparation assistance, and studies of the effectiveness of making good choices the "default" option for policies such as retirement savings. But the number of "conceptually neat" problems are few.

Chapter Two also draws on *Realistic Evaluation* by Ray Pawson and Nick Tilley who advocate evaluating the effectiveness of individual interventions in particular situations, rather than mounting experiments to discover large scale interventions that "work" across varying situations. As discussed in Chapter Five, improvement scientists in industry and health care employ this technique.

3. Proper attention to the problem of measurement is essential for using evidence to improve policy and practice. E.O. Wilson asserts that measurement using "universally accepted scales" is a fundamental requirement for science. And the essential role of measurement is universally recognized by the discipline of "improvement science" in industry, health care, and most recently in the Networked Improvement Communities of the Carnegie Foundation for the Improvement of Teaching. But getting measurement "right" is challenging.

Chapter Three offers a discussion of the potential and the challenges of measurement focusing on four initiatives in education: a) *Measuring Up,* a ten year initiative of the National Center for Public Policy in Higher Education, which graded the states on their performance in key dimensions of higher education policy and outcomes; b) the Data Quality Campaign, which has successfully promoted the development of more robust, longitudinal data systems in the states and helped inspire the Common Education Data Standards initiative; c) the Common Core Standards for Career and College Readiness in mathematics and English language; and d) Assessing Higher Education Learning Outcomes (AHELO), a recent initiative

of the Organization for Economic Cooperation and Development.

These four initiatives have provided opportunities to learn about the challenges of creating valid, useful measurement, and the difficulties of translating useful measurement into action for improvement. None of them solved all the relevant problems, but all of them have made important contributions in increasing our understanding of measurement challenges and our capabilities for using measurement productively.

4. Useful evidence must be fit for the purposes for which it is employed, it must serve the purposes of the stakeholders involved in policy and practice, it must acknowledge the individual rights of stakeholders, including their right to privacy and the (limited but legitimate) right to protect their own interests, and it must find a way to navigate the shoals of accountability while working for improvement.

    The fitness of evidence for different purposes must recognize the distinction between policy and practice, and the capabilities and limitations of policy and practice. Policy is generally limited to two blunt instruments: law and regulation associated with law; and money applied to different purposes and under the conditions specified by policy. The inherent inflexibility of policy is its greatest weakness in solving complex, multi-faceted problems. In *Seeing Like a State: How Certain Schemes to Improve the Human Condition Have Failed*, James C. Scott analyses the factors that lead to policy over-reach and provides numerous examples of failed policy efforts to solve social problems. Policy especially fails when it over-specifies practice and constrains the abilities of practitioners to learn and take adaptive actions in the situations in which they work.

    In the policy realm evidence can and should be used to identify the scope, intensity, and geographical incidence of social problems where the tools most readily available to government (the investment of money and enacting of laws and regulations) might make an important contribution. Government can productively support research to increase the understanding of a problem, government can support efforts to increase the capabilities of practitioners, and government can influence or enable others to act by providing direct or indirect investments where money by itself is a significant factor in a problem. Evidence can and should be used to test whether policies are effective in making such contributions.

    While good policies are essential for good practice, governments and coarse-grained governmental policies and programs by themselves are incapable of solving complex problems. Complex problems require the work of skillful practitioners, whether they are health care or social service professionals, teachers, scientists, military leaders, or administrators. Evidence-based policy and evidence-based practice (some prefer practice-based evidence) in

partnership are needed to improve the human condition. "Evidence-based policy" will fail if it seeks to discover and then faithfully implement at scale practices or programs to solve complex problems. Complexity and faithful implementation at scale are inherently in conflict.

Chapter Four of the book explores these issues in some depth, including an analysis of issues related to student and institutional privacy in a proposal to create student unit record data system for higher education. The four measurement initiatives discussed in the previous chapter are evaluated in terms of five questions: a) How does the initiative serve policy makers, the public, and practitioners? b) Is the division of labor between policy and practice clear and productive? c) Are the uses of the data well suited to the capabilities of the users? d) Are privacy rights an issue? And e) Are the data accurate, reliable, valid, and fit for purpose?

5. A productive partnership between evidence-based policy and evidence-based practice requires practitioners to employ the disciplined use of evidence to improve outcomes. The practitioners of "improvement science" in industry, in health care, and more recently in education employ qualitative research techniques (which some call "reflective practice") to develop causal theories about problems and to design small-scale interventions to ameliorate the problems. They then employ quantitative techniques to test interventions quickly, study the results, learn, and adapt their strategies to obtain better results. Tony Bryk of the Carnegie Foundation for the Improvement of Teaching characterizes this approach as "small change with fast learning" as opposed to the traditional strategy of "big change and slow learning" through traditional research studies of large scale interventions.

Practitioners can learn from "laboratory" research and research based in other practice settings, but the first step in "evidence-based practice" is to consider whether and to what extent findings in a different context and setting may apply in the immediate situation. Experimentation and adaptation in the practice setting are essential for improving outcomes.

Chapter Five considers evidence-based practice in health care, education (focusing on the Networked Improvement Communities of the Carnegie Foundation for the Advancement of Teaching), and social work. It concludes, "In the end, the effective use of evidence to improve practice will require respect for the complexity of practice and the wisdom of practitioners combined with respect for scholarship—systemic analysis, the development and pursuit of theory (or hunches) about causal relationships, measurement, experimentation, and adaptation. Advances in data systems, in measurement, in basic science, and in creative ways of marrying the wisdom of practice with systemic inquiry are increasing the potential for significant progress."

The growing need to increase the breadth and quality of educational

attainment has recently led to important advances in the use of measurement to improve educational practice. The National Institute for Learning Outcomes Assessment http://www.learningoutcomeassessment.org has documented and promoted the increasing use of assessment to improve teaching and student achievement in higher education. In both K-12 and higher education, new tools have been developed for increasing the focus and clarity of learning objectives and for assessing student learning in order to improve instruction and achievement.

These tools include:

   a. The Common Core State Standards Initiative which has added clarity and focus to K-12 learning objectives http://www.corestandards.org and the summative and formative assessments it inspired have advanced the quality and sophistication of tools available to improve teaching and learning.

   b. The Degree Qualifications Profile http://degreeprofile.org and the quite similar Essential Learning Objectives published by the Association of American Colleges and Universities (AAC&U) https://www.aacu.org/leap/essential-learning-outcomes which have given colleges and universities clear targets for student learning.

   c. The VALUE rubrics https://www.aacu.org/value-rubrics, also developed by AAC&U which have provided tools for assessing levels of student learning based on actual student work, rather than unavoidably superficial standardized tests. Twelve states are participating in a demonstration project to employ VALUE rubrics in the Multi-State Collaborative, a collaboration of the State Higher Education Executive Officers and AAC&U. http://www.sheeo.org/msc

6. Public policy is not shaped simply by evidence. It is also shaped by competing interests and by varying views about the causes of and solutions to social problems. Evidence can inform and shape the views of policy makers and how they perceive their interests, but the powers of evidence are limited. In democracies, competition for influence and negotiation among competing perspectives powerfully shape policy. It is unlikely that evidence will ever become the final arbiter between competing interests and different worldviews.

But as discussed in Chapter Six, evidence can play a constructive role. Establishing widely accepted measures of important social conditions can be a powerful way for evidence to shape policy. If policymakers can agree on ways to measure facts on the ground, especially facts that are directly

relevant to the communities they represent, evidence can foster more effective policies.

Research can also inform the shared understanding of the systems that produce undesirable outcomes and the factors associated with improved outcomes. For example, over several decades research by the University of Chicago Consortium on School Research has helped policy makers and practitioners better understand and more effectively create the conditions associated with more effective schools and higher levels of student achievement. Such understanding is the first step in developing policies and practices to yield improvement.

7. In summary, the use of evidence has great potential to improve social policies and the effectiveness of specific programs and interventions. To realize this potential, however, the distinctive roles of policy and practice must be observed. Policy and practice have different capabilities, as well as different needs and uses for data and evidence. If policy seeks to improve practice by substituting policy for practice or by intruding too forcefully into the domain of practice, it will fail.

   Perhaps most importantly, improvement in practice, rather than policy accountability should be the first purpose of measurement. The halting and controversial implementation of the Common Core State Standards exemplifies the consequences of failing to observe this principle. Although it is quite helpful, almost essential for practitioners to have a common yardstick for assessing results, if measurement is predominantly employed as a tool for threat-based accountability, more energy will be devoted to avoiding or reducing threat than to improving performance.

   Instead, policy should work to create the conditions necessary for effective practice, and accept in partnership with practitioners shared accountability for improvement. Practitioners need to accept and embrace their responsibilities for using evidence to improve practice and for identifying and advocating policies that can help them become more successful. Improved outcomes require an evidence-based partnership between policy and practice.

DATA INFRASTRUCTURE AND ACCESS

During the past fifteen years a number of projects discussed in the book -- the Common Education Data Standards project, a proposed student unit record system for higher education, federal funding for State Longitudinal Data System, and the Data Quality Campaign -- confronted the questions enumerated by the Commission in this section. These observations address specific issues that I observed while participating in these projects.

1. More data are required for guiding practice than are required for guiding policy. It is close to impossible to achieve common data definitions and common practices in complying with those definitions in a wide range of domains. The more data are collected, the more difficult the challenge, and the more likely the data will not be useful. It is easier to obtain useful data for policy if the data set is coarse-grained, focusing on high-level indicators. The practice setting normally requires more data elements, but absolute fidelity to common data definitions is needed for only a few important outcomes. The solution to this problem is to collect the data that are needed for policy and for practice as separate activities. Both policy and practice data sets should employ the same definitions for the comparatively few data elements needed for policy analysis, but there is no need to have perfectly aligned data for the many thousands of data elements that will be employed in different practice settings. (The scope of the Common Education Data Standards is an example of data system overreach.)

2. In some, but not all respects, the issues involved in protecting individual privacy apply also to protecting institutional or organizational privacy. This was the underlying issue that prompted congressional action forbidding the Department of Education from establishing a student unit record system that would include data on financial assistance provided by private colleges and universities. Some situations limit the rights to institutional privacy, just as some situations limit the right to individual privacy. These need to be defined as a matter of policy, informed by the legitimate interests of all stakeholders.

3. The National Student Clearinghouse (NSC) has collected individual student enrollment and completion data in higher education for more than a decade while protecting both individual privacy and institutional privacy. These data, analyzed by the NSC Research Center, have been used to improve available information about graduation and transfer rates in higher education.

    NSC is largely supported by fees generated by outside clients for degree and enrollment verification and other uses of the data, which are approved by the students and institutions involved. A public/private partnership, employing entities like NSC could be a mechanism for financing data collection and utilization, governed by privacy policies developed by consensus among stakeholders.

4. The Patient Centered Outcomes Research Institute (PCORI)[ii] is an effort to develop a data sharing platform for improving medical practice. While consistent, reliable data collection is complex even in medicine, a large scale data set is likely to be more useful in improving medical practice than in fields with more complicated problems of measurement. This initiative might, however, provide experience useful in sorting through appropriate

boundaries between practice and policy and the privacy issues in other domains.

CONCLUSION

I would be pleased to elaborate on these comments, respond to questions, or provide additional information on any topics of interest to the Commission.

Respectively submitted,

Paul E. Lingenfelter

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[i] See also: Ginsberg, A. and Smith, M.S. (2016) *Do Randomized-Controlled Trials Meet the Gold Standard?* Washington, DC: American Enterprise Institute.

[ii] Collins, F. S., Hudson, K. L., Briggs, J. P., & Lauer, M. S. (2014). PCORnet: Turning a dream into reality. *Journal of the American Medical Informatics Association: JAMIA, 21*(4), 576–577. doi:10.1136/amiajnl-2014-002864

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Request for Comments for the Commission on Evidence-Based Policymaking

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Submitter Information

Name: t g

General Comment

we do not need such database. NO

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Request for Comments for the Commission on Evidence-Based Policymaking

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Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

This is an absolute OUTRAGE! Compiling and linking data like this on private citizens - children, no less! - is something that is done in communist countries, NOT the United States of America. Mine and my children's lives are PRIVATE. Stop taking money from Bill Gates, and stay out of our private lives!

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0030
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

See attached file(s)

Attachments

CEP_Comments_for_TPP_Tier_1_CNO

Commission on Evidence-Based Policymaking Comments
Docket ID: USBC-2016-0003
Federal Register Number: 2016-22002

Christi Hammons
Choctaw Nation of Oklahoma
P.O. Box 88
Hugo, Oklahoma 74743   November 2, 2016

Dear Chair Katharine G. Abraham, Co-chair Ron Haskins, and members of the Commission:

The Choctaw Nation of Oklahoma welcomes the opportunity to provide comments to the
Commission on Evidence-Based Policymaking (CEP). We offer input for questions 16 and 18
based on our experience as a grantee of a high-quality evidence-based program, the Office of
Adolescent Health's Teen Pregnancy Prevention (TPP) Program. This program has been
recognized as a pioneering example of tiered evidence-based policymaking, and represents an
important contribution to building a body of evidence of what works. This includes high quality
implementation, evaluation, innovation, and learning from results.

The Choctaw Nation of Oklahoma is a non-reservation-based Native American tribal
government located in 10 ½ counties in southeast Oklahoma, and was the first tribe to be named
as a Promise Zone. Youth in the Choctaw Nation face many disparities including high rates of
poverty, low educational attainment, and high unemployment. An additional disparity, and
perhaps underlying cause of other disparities, is the alarmingly high rate of teen pregnancy. In
2015, the Choctaw Nation received a TPP Tier 1B grant to address teen pregnancy in the three
Choctaw Nation counties with the highest teen birth rates. The goal of the newly implemented
program is to have a significant impact on reducing rates of teen pregnancy and existing
disparities by replicating evidence-based teen pregnancy prevention programs to scale in middle
schools, high schools, and alternative schools in Choctaw, McCurtain, and Pushmataha Counties
in southeast Oklahoma.

As a TPP Tier 1 grantee we incorporated evidence into all aspects of our project. The program
models we implemented were chosen from a list of those that had already been rigorously
evaluated and demonstrated to change behavior.

We also used evidence to guide and improve our project throughout the grant period. During the
first year of the grant, the program collected data from over 1,000 community members as well
as published resources to ensure the program chose the evidence-based models most suited for
our community. Now that the program has begun implementation, staff collect data on all
lessons taught to youth to report on performance measures as well as to improve fidelity to the
evidence-based curricula and improve the quality of the teaching activities. This data is also
used for continuous quality improvement for the program. We look forward to analyzing
comparison data over the coming years to quantify the impact this program has made.

In closing, we consider the TPP Program to be a prime example of high-quality evidence-based
policymaking. It is one of the few government programs that use evidence and evaluation

criteria throughout the grant life cycle. Thank you for considering our input for the CEP. If you have any questions or need additional information, please contact me at (580) 326-8304 (ext. 6058) or chammons@choctawnation.com.

Sincerely,
Christi Hammons
Director
Teen Pregnancy Prevention Program

PUBLIC SUBMISSION

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

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Comment on FR Doc # 2016-22002

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General Comment

See attached file(s)

Attachments

Data Access Docket Number 160907825-6825-01

Data Availability:

[Docket Number 160907825-6825-01]

Request for Comments for the Commission on Evidence-Based Policymaking

There is an obvious tension between "strategies to increase the availability and use of government data" and "protecting the privacy and confidentiality of the data". But there are other tensions as well: a fair building and analysis of a data set versus finding data and building an analysis data set to support a preselected policy. The later strategy can lead to publication bias whereby results that do not support a policy are simply not published. Fund researchers that support your policy versus fund research to answer a question. There is the individual researcher incentive versus the common good.

The Request for Comments is answered in a series of short notes, usually with a pointer to relevant literature. I take the perspective of Edward Glaeser that researchers are expected to be self-serving and systems of data access and analysis should be in place to take that into account and promote the common good.

Summary:
Asking scientists to do better, share data, has not and will not work. As a condition of funding and publication, it should be a requirement that authors place their analysis data set in a public repository. One should assume that authors are self-serving and optimize getting a publication and that includes slanting the data set construction and analysis methods to get a publishable result or a result that favors a particular policy.

The analysis data set should be built in a way that personal identity is protected. For example, if the data is micro aggregated before the analysis is done, the micro aggregated data can be shared as the aggregation step protects personal identity. See "productive and counterproductive aggregation of experimental units" below.

 The raw data set and the code used to build the analysis data set should be saved in a way that it can be made public or given to a trusted 3rd party for examination. The raw data, the code used to convert the raw data to the analysis data set and the analysis data set should go to the agency that funded the work. And/or it should go to a public archive, e.g.dryad. Any work that cannot provide these things should not be funded with taxpayer money.

A study should be registered in a public registry and a summary report, results positive or negative, should be placed in the registry.

On important questions funded by government agencies, two studies should be funded, one seeking to support the claim being tested and the other seeking to deny the claim being tested.

More broadly, under what conditions is the claim supported and under what conditions is the claim not supported.

1. Joe Cecil wrote a very perceptive article on legal aspects of data access back in 1985. Here are two quotes I like:

"As an abstract principle, the sharing of research data is a noble goal and meets with little opposition. However, when data sharing is attempted in a particular circumstance, the conflicting interests of the parties can thwart the exchange. A glance at the benefits and obstacles to data sharing discussed by Hedrick (in this volume) reveals the reason: few of the benefits and most of the burdens fall to the possessor of a data set."

and

"This case suggests that an agency can insulate its actions from public scrutiny by funding a grant for controversial research and then basing its action on those findings. As long as the agency does not take possession or control of the records, the FOIA will not assist those who wish to challenge the findings that underlie the agency action."

Required data access would be a step in the right direction. There are almost always technical and operational ways to share data **IF** the will is there.

Cecil JS, Griffin E. 1985. The role of legal policies in data sharing. Pages 148-198. Sharing Research Data. National Academy Press. Washington DC.

2. The problem will not be solved by admonishing scientist to do reproducible science and make their data sets public. Or act symbiotically with those that have the data. Such thinking is hopelessly naive. We should expect scientists to act in their own best interest, which includes shaping their data set and analysis to produce a claim that is publishable, p-value <0.05, with a nice story.

Glaeser 2006, an economist, wrote against fellow economists that they did not treat themselves as they treated others. Economists typically argue that people work to their own self-interest. Glaeser said economist should take the position that researchers work to their own self-interest. They will fudge here and there. They will provide facts that support their position. They will ignore facts that do not support their story. It is not only money, grants, but it is also prestige. Glaeser used the term "optimizing researchers" for what would be called science crooks in less polite company. Requiring that data be placed in a public repository will make self-serving more difficult, but not impossible.

Some quotes:

"The solution to this problem is not to expect a mass renunciation of data mining [data dredging doing this and that to find some publishable result], selective data cleaning or opportunistic methodology selection, but rather to follow Leamer's lead in designing and using techniques that anticipate the behavior of optimizing researchers."

"After all, the impact of such techniques is invariably to reduce the significance levels of results. [get smaller p-values.] The same incentives that induce researchers to data mine will induce them to avoid techniques that appropriately correct for that data mining."

Large data sets "…give researchers new opportunities to use their initiative to enhance their results."

Discussion Paper Number 2122 Researcher Incentives and Empirical Methods. Edward L. Glaeser October 2006 HARVARD UNIVERSITY

3. Lewandowsky, writing in Nature, seems to take the position that Michael Mann of GW fame is very unfairly put upon. There is lots of evidence that Mann acted with malice: trying to get an editor fired; manipulating data and analysis, etc. Whatever the situation scientifically, open access to data would have helped. The climate data held by CRU, Climate Research Unit, was both stonewalled and manipulated. See the short book ClimateGate, The CRUTape Letters by Steven Mosher and Thomas Fuller. Ultimately Phil Jones of CRU deleted raw data so that it could not be gotten through freedom of information.

Mostly my time is my own. In Nov of 2009, I took two days to follow closely the blogging that was the reaction to a 60GB CRU data dump. The discussion was very lively and quite detailed. The overall impression was that the CRU and their inside people were science crooks. For a rather impartial look at the situation track down Judith Curry of Georgia Tech. Or look at some of the work of Steven McIntyre.

Keep in mind "Anything worth having is worth cheating for." W. C. Fields

4. In the Significance article of Young and Alan Karr, the position is taken that funding agencies and editors need to exercise their management responsibility (Demning). You cannot expect workers to clean up the lack of data access. As Deming points out, mostly <u>the workers are reacting to the incentives in place</u>. They are more or less adjusted to them, if not actually happy. Workers, work-a-day-scientists, cannot and will not change the system. Any charge to them to behave better is so much wasted ink/breath. Only the managers of the scientific system, funding agencies and journal editors, have the power to change it.

Young SS, Karr A. 2011. Deming, data and observational studies: A process out of control and needing fixing. *Significance* September, 8:122–126.

5. Air pollution is a good case in point for data access. In 2006 Roger Peng (and others) were without good access to environmental epidemiology data; he and others wanted data access. When Congress, with oversight over the EPA, wanted data, Peng blogged that Congress was just trying to cause trouble and that they should not have access to the data. Peng et al. appear to take the position that

> a. it is clearly true that current air quality is a causal killer and
> b. it would be costly to provide access to the data.

but

> a. It is possible that air quality is not a killer, e.g. Greven et al. (2011), Milojevic et al. (2014), among many others
> b. the regulation of air quality is enormously expensive without effective scientific oversight.

NB: Researchers funded by EPA on air pollution are making very serious public health claims. Where public health is concerned, data is often/usually made public or provided to a trusted 3rd party.

The evidence is that the EPA and their funded researchers stonewall on data access. I have a massive data set, Young et al. (2015), that makes the case that current air quality is not killing anyone.

But how can normal science work efficiently without access to data?

Greven S, Dominici F, Zeger S. 2011. An approach to the estimation of chronic air pollution effects using spatio-temporal information. *J Amer Stat Assoc*. 106:396-406.

Milojevic A, Wilkinson P, Armstrong B, Bhaskaran K, Smeeth L, Hajat S. 2014. Short-term effects of air pollution on a range of cardiovascular events in England and Wales: case-crossover analysis of the MINAP database, hospital admissions and mortality. *Heart* 100:1093-1098.

Peng RD, Dominici F, Zeger SL. 2006. Reproducible epidemiologic research. American Journal of Epidemiology 163 (9), 783-789

Peng blog.
http://simplystatistics.org/2014/04/01/this-is-how-an-important-scientific-debate-is-being-used-to-stop-epa-regulation/

Lopiano KK, Smith RL, Young SS. 2015. Air quality and acute deaths in California, 2000-2012. https://arxiv.org/abs/1502.03062

6. The evidence is that well over half of claims made in science papers do not replicate. Now, all of the flawed papers are full of statistics. See Begley and Ellis (2012). At some point, the public might well say: How could all these flawed claims be made in peer reviewed journals and have the blessing of statistical analysis? Why should the taxpayer fund any of this? Also, where were the real statisticians to let this go on so long and so widely?

Note that the White House, OSTP Feb2013, by executive order, require data access to taxpayer funded research. So far as I know the EPA is not in compliance. They have a policy of not accepting data sets so the FOAI will be unsuccessful. I have a letter from the EPA saying they do not accept data sets of the research they fund.

Baker, M. 2016. 1,500 scientists lift the lid on reproducibility. Nature 533:452-454. **http://www.nature.com/news/1-500-scientists-lift-the-lid-on-reproducibility-1.19970**

Begley CG, Ellis LM. 2012. Raise standards for preclinical cancer research. Nature 483:531–533.

7. Learned societies, e.g. The Royal Society, National Academy of Science, etc., take the position that researchers make their data sets available. They put the responsibility on scientists. Their position is totally without effect. The responsibility lies with funding agencies and journal editors. They need to change the incentives. But even giving the problem to the funding agencies, e.g. EPA, is not enough. The EPA lets contracts to support their policies and do not take possession of the data so that FOIA cannot reach through the agency to get the data. Policies need to be in place so that the EPA is required/has the incentive to make data available**.

Cecil JS, Griffin E. 1985. The role of legal policies in data sharing. Pages 148-198. Sharing Research Data. National Academy Press. Washington DC.

**

Use of Science Transparency Act

Any federal agency proposing rule-making or legislation shall specifically name each document used to support the proposed rule-making or legislation and provide all data used in said document for viewing by the public.

Federal Study Transparency Act

If federal funds are provided for a study, all data relating to the reporting of results of said study must be provided for scrutiny by the public at the time of publication.

8. No help from judges:

'This amount of information that can be presented to the court is huge. "You can appreciate what the 'record' looks like on review," Verkuil said. "It is enormous, and the agency has to decide what is in and what is out on its own." "Although courts can scrutinize the research and underlying data upon which the agency relied, Verkuil said, they generally defer to the agency on technical determinations. Courts recognize that they do not have the technical expertise to second-guess an agency's scientific or technical judgment.'

So the EPA, for example, does not provide the data for the papers used to support their policy and judges defer to their judgement on technical matters. Any agency can adopt the position that controversial research can be outsourced and so long as they do not take possession of the data, FOIA cannot reach through the EPA to get the data.

This is a perfect recipe for self-dealing, without any general science supervision.

The EPA, and any government agency, should be required to take possession of every analysis data set used in a publication they fund. Ideally they should require the data sets to be place in a public repository.

THE NATIONAL ACADEMIES PRESS
http://www.nap.edu/21703

9. Micro aggregation to protect personal identity.

Productive and Counterproductive Aggregation of Experimental Units

Aggregation of experimental units (usually individual persons or business entities) is quite commonly used, especially by governmental entities, in order to (legally and ethically) <u>publicly</u> share data / information while preserving personal privacy and/or anonymity. For example, summary statistics are computed and available for counties in the US.

This tactic is applied within Local Control (LC) Strategy [Def. In Local Control analysis experimental units are clustered based on the characteristic, characteristics that matter.] for statistical analysis in a particularly **productive** way (i.e. allowing / enabling conditional inference) ...to create subsets of experimental units that are <u>relatively well-matched</u> on either one or (simultaneously) several different "relevant" x-confounder characteristics. Each LC subset (cluster) represents an <u>intersection</u> of publishable x-ranges ...or, at the least, at a given x-vector centroid. [Experimental units are within clusters of similar objects.]

In stark contrast, government entities typically aggregate data for political and/or geographical units in a distinctly **counterproductive** way ...for cities, counties, states and even regions of the US. These subsets contain experimental units that are statistically diverse ...corresponding to a <u>union</u> of arbitrary (usually un-specified) x-values.

For example, consider information on smoking and mortality. Individuals supposedly control their level of participation in smoking, but city-level data typically report (census or survey data) on only the proportions of their adults in various smoking categories. Such information is <u>much less potentially informative</u> than, say, mortality rates broken down by smoking-level category. Even worse, whatever this initial aggregation is, it usually <u>cannot be subsequently undone</u> by the recipient of only aggregated data. While LC strategy can still be applied to analyses of counterproductively aggregated data in a remotely productive way, it's already much too late to have fully avoided incalculable information loss!

This committee should make a lot of noise about this key issue. All government data administrators (including the census bureau) and health-care data holders really do need to more fully appreciate the <u>information-loss penalties they are arbitrarily imposing</u> upon key observational data via counterproductive data-reporting practices (geographical aggregation and/or fire-walls between databases of competing providers.)

Obenchain RL, Young SS. 2013. Advancing statistical thinking in observational health care research, J Stat Theory Pract 7 (2013), 456–469.

10. A National Academy of Science report was issued on data sharing in the life sciences and the principles apply to other areas of research.

The report comments:

"Community standards for sharing publication-related data and materials should flow from the general principle that the publication of scientific information is intended to move science forward. More specifically, the act of publishing is a quid pro quo in which authors receive credit and acknowledgment in exchange for disclosure of their scientific findings. An author's obligation is not only to release data and materials to enable others to verify or replicate published findings (as journals already implicitly or explicitly require) but also to provide them in a form on which other scientists can build with further research. All members of the scientific community—whether working in academia, government, or a commercial enterprise—have equal responsibility for upholding community standards as participants in the publication system, and all should be equally able to derive benefits from it."

This statement describes the ideal. In practice, the standard must be enforced by those managing the scientific process, journal editors and funding agencies. See Young and Karr (2011).

"Sharing Publication-Related Data and Materials: Responsibilities of Authorship in the Life Sciences" http://www.nap.edu/catalog/10613.html.

Young SS, Karr A. 2011. Deming, data and observational studies: A process out of control and needing fixing. *Significance* September, 8:122–126.

11. To produce a publishable story, researchers will tweak data and analysis methods. Glaser 2006 argues that policies need to be in place to "anticipate the behavior of optimizing researchers". Pre-registration of studies and requiring access to data are two steps that "anticipate the behavior of optimizing researchers". Here is the abstract of Glaeser:

"Economists are quick to assume opportunistic behavior in almost every walk of life other than our own. Our empirical methods are based on assumptions of human behavior that would not pass muster in any of our models. The solution to this problem is not to expect a mass renunciation of data mining, selective data cleaning or opportunistic methodology selection, but rather to follow Leamer's lead in designing and using techniques that anticipate the behavior of optimizing researchers. In this essay, I make ten points about a more economic approach to empirical methods and suggest paths for methodological progress."

Discussion Paper Number 2122 Researcher Incentives and Empirical Methods. Edward L. Glaeser October 2006 HARVARD UNIVERSITY

12. How do you get a statistically significant result? You ask a lot of questions. If 100 questions are asked testing at the 5% level, you expect about five chance "nominally statistically significant" results, Young and Karr (2011) and Austin et al. (2006). It is well-known that most research findings fail to replicate. Austin et al. (2006) provide a humorous exposition of multiple testing problems:

"The purpose of the current study was to demonstrate the pitfalls of multiple hypothesis testing and of conducting analyses without prespecified hypotheses."

"Conclusions: Our analyses illustrate how the testing of multiple, non-prespecified hypotheses increases the likelihood of detecting implausible associations. Our findings have important implications for the analysis and interpretation of clinical studies."

Not stating a pre-specified hypothesis is common across all science.

Austin PC[1], Mamdani MM, Juurlink DN, Hux JE. 2006. Testing multiple statistical hypotheses resulted in spurious associations: a study of astrological signs and health. J Clin Epidemiol. 59:964-969.

Young SS, Karr A. 2011. Deming, data and observational studies: A process out of control and needing fixing. *Significance* September, 8:122–126.

13. Place data in a public repository

Vines et al. (2013) stated

"…we believe that journal-based mandatory data archiving policies and mandatory data availability statements should be more widely adopted."

In journals that require data sharing, most typically (2/3s of the time) data is not available.

I systematically requested 50 environmental epidemiology data sets. I got no data sets. Making data set available is not happening.

Vines TH, Andrew RL, Bock DG, Franklin MT. 2013. Mandated data archiving greatly improves access to research data. FASEB

14. Personal experience with data access A

I requested the Chay data set from the authors of the paper. Carlos Dobkin said that he would look for the data. My request was in 2014 or so. He found the data and send it to me. We did a re-analysis of the data using a new method, Local Control, that we expected to be simpler and more robust to covariates. We reached the same conclusion as Chay et al. (2003). We found no association between PM2.5 and mortality.

Chay K, Dobkin C, Greenstone M. 2003. The Clean Air Act of 1970 and adult mortality. *J Risk Uncertainty* 27:279-300.

Obenchain RL, Young SS. 2013. 2016. Local Control Strategy: Simple Analyses of Air Pollution Data can reveal Heterogeneity in Longevity Outcomes. Risk Analysis (in press)

15. Personal experience with data access B, California

I was unable to get data sets used in air quality/health effect publications. At one point I sent out a request to 50 environmental epidemiology researchers. I got no data sets. California has an open access policy. I got ~2M e death certificates. The process to get the data took 1-2 months. I paid a nominal amount for each year. I had to read and process the data into an analysis data set, several weeks of work. I got permission from California to make the analysis data set public. The personal identity of the individuals was protected in my analysis and data disclosure by micro aggregation. I gave daily deaths only, not individual person records.

16. Personal experience with data access C, London

London was the site of a massive air quality/mortality event in 1952. There was atemperature inversion and air pollution increased dramatically. It is estimated that over 4000 died. We asked for London more current daily mortality data. Again there was nominal fee for each year. In about two months we received our data. Most interestingly, the government agency also posted the data set publicly so that anyone could download the data. We asked for daily data which protected individual identity.

17. Personal experience with data access C, CDC NCHS.
We have an ongoing request for data from the US CDC National Center for Health Statistics. We would like to duplicate the work of Zanabett et al. (2009). Zanabetti would not make her analysis data set available thereby forcing our research group to duplicate data access and staging work. This process of getting access to the analysis data set (protected by micro aggregation) is into its 2nd year with no end in sight. We do not actually get the data set from NCHS. We must appear at a CDC data center and do all our work on CDC computers. We need some rather mainstream statistical analysis programs, which they do not have. It remains to be seen if we can use the analysis programs we want. All-in-all it is a colossal bureaucratic pain. Typical, the CDC NCHS has the data and they can make whatever conditions they like. Hell will freeze over before we get access to the data. They don't appear to care. The analysis data set should be available. The new researcher should not have to replicate all the data acquisition and cleaning.

Our UK supplier of data, vetted the data request and considered personal identity protected. They provide us with the data AND put the data up on a web site. They took responsibility for making the data public. Multiple legal forms are filled out for CDC/NCHS that make the receiver of the data subject to massive fines and imprisonment. Many do not have the time and patience to put up with their data access policies.

If the CDC charged a user fee, they might have the incentive to actually provide data.

Zanobetti A, Schwartz J. 2009. The effect of fine and coarse particulate air pollution on mortality: a national analysis. Environ Health Perspect. 117:898-903.

18. Young-Graham Law

The clear incentive of a researcher or a regulatory agency is not to make data available. Joe Cecil pointed that out in 1986. Effectively nothing has changed in 30 years. Cecil works for the Department of Justice and is well worth talking to. Several years ago, I asked if he was still involved or would like to be in data access. He said, <u>NO, it is/was all talk and no progress</u>. The issue is that there should be an external incentive to share data. For example, researchers should promise to share data or they get no funding. The EPA cannot use a paper to support a regulation unless the data used in the paper is publicly available. To wit

Use of Science Transparency

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Federal Study Transparency

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Following the guidance of Cecil and Griffin an agency can stonewall access to data that is government funded.

19. Personal experience with data access C, Pope, NEJM 2009

Pope made a claim that the decrease in PM2.5 lead to a decrease in human mortality over the years ~1980 to ~2000. Of course, many things changed over that time period. Medical science improved, smoking declined, income improved, etc. I asked for the data set from Arden Pope and he sent me the analysis data set. I was able to show, Young and Xie (2013) that there was no effect of PM2.5 in the western US, including in particular California. I was also able to show, Young and Xie (2003) that variable most associated with improved mortality was income, 3x more important than PM2.5. Later, using the Pope data set we were able to show that if covariates are taken into account using Local Control analysis that any effect of PM2.5 on mortality varied due to covariates; Young, Obenchain and Lambert (2016). We got similar results with a much larger data set, Obenchain and Young (2016).

The presumed point of doing research is to get valid claims, claims that will replicate. An important reason to have access to research data sets is to allow scientists to carefully examine the data and methods and importantly subject the data set to additional analysis. For normal scientific oversight, there has to be access to data by the public at large or by a trusted 3rd party.

Young SS, Obenchain RL, Lambert cg. 2016. A problem of bias and response heterogeneity. In Standing with Giants, Moghissi and Ross, editors.

Obenchain RL, Young SS. 2013. 2016. Local Control Strategy: Simple Analyses of Air Pollution Data can reveal Heterogeneity in Longevity Outcomes. Risk Analysis (in press)

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0032
Comment on FR Doc # 2016-22002

Submitter Information

Name: Terry Greenberg
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General Comment

Commission on Evidence-Based Policymaking Comments
Docket ID: USBC-2016-0003
Federal Register Number: 2016-22002

Ntarupt - North Texas Alliance to Reduce Unintended Pregnancy in Teens
Fund of the Dallas Foundation
624 N. Good-Latimer Expy, Suite 100
Dallas, Texas 75204
November 4, 2016

Dear Chair Katharine G. Abraham, Co-chair Ron Haskins, and members of the
Commission:
Ntarupt welcomes the opportunity to provide comments to the Commission on Evidence-
Based Policymaking (CEP). We offer input for questions 16 and 18 based on our
experience as a grantee of a high-quality evidence-based program, the Office of
Adolescent Health's Teen Pregnancy Prevention (TPP) Program. This program has been

recognized as a pioneering example of tiered evidence-based policymaking, and represents an important contribution to building a body of evidence of what works. This includes high quality implementation, evaluation, innovation, and learning from results.

o Our Mission: To increase the quality of life for children, families and communities by preventing unintended teen pregnancy; and
o Our Vision: That every young person in our community has the opportunity to set goals, plan an education and a career, and become self-sufficient before entering into parenthood.
As a TPP Tier 1 grantee we incorporated evidence into all aspects of our project. The program model we implemented was chosen from a list of those that had already been rigorously evaluated and demonstrated to change behavior.
We also used evidence to guide and improve our project throughout the grant period.
1. We conducted an in depth needs assessment with parents, teens, medical providers and teachers in the grant area.
2. We selected evidence based interventions, using the Getting to Outcomes framework, which suited the populations.
3. We have added evaluation of our programs using pre- and post- tests to ensure that the intervention is doing what is supposed to do.
4. We have delivered to both teens and their parents, reinforcing their knowledge, attitudes and ability to communicate about delaying sexual initiation. We are finding that, once we are able to talk to parents, they are very much in favor of their children being educated.
5. The pilot period has allowed our outreach to be in depth, and we are just now able to take advantage for recruitment. Cutting funds at this point would not allow the community and the government to reap the fruits of this investment.

In closing, we consider The TPP Program to be a prime example of high-quality evidence-based policymaking. It is one of the few government programs that use evidence and evaluation criteria throughout the grant life cycle. Thank you for considering our input for the CEP. If you have any questions or need additional information, please contact me at 214-717-6477or tggreenberg@ntarupt.org

Sincerely,
Terry Goltz Greenberg,
CEO, Ntarupt

Attachments

CEP_Comments_for_TPP_Tier_1_and_PREP (2)

{Comments are due November 14, 2016. [Click here](#) for the submission link. Use this version of the letter if you were a TPP Program Tier 1 grantee, a State PREP sub/grantee, Competitive, or Tribal PREP grantee.}

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Commission on Evidence-Based Policymaking Comments
Docket ID: USBC-2016-0003
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Teens
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Sincerely,
Terry Goltz Greenberg,
CEO, Ntarupt

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0033
Comment on FR Doc # 2016-22002

Submitter Information

Name: Julie Goodman
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   Cambridge, MA, 02138
Email: jgoodman@gradientcorp.com

General Comment

See attached file.

Attachments

Gradient_Goodman_Federal _Reg_Comment

9. What specific administrative or legal barriers currently exist for accessing survey and administrative data?

Currently, the data application procedures for accessing survey and administrative data are extremely time-consuming and cumbersome, and sometimes appear to involve unnecessary steps. For example, the national mortality data with individual-level information for specific date and cause of death are considered research identifiable data, and the Centers of Disease Control and Prevention (CDC) website clearly indicates that such data can only be accessed through a data application to The National Center for Health Statistics (NCHS). Before submitting an application to NCHS, one is required to first submit a formal data application to the National Association for Public Health Statistics and Information Systems (NAPHSIS) for national vital record-based datasets. NAPHSIS only releases aggregated mortality data (*i.e.*, at population level), but researchers who explicitly request for individual-level mortality data cannot bypass this organization. A review by the NAPHSIS research committee often takes several months to complete. It is not clear why it takes this much time, and this often is a major barrier to completing research.

In addition, the application processes and requirements for data access are often unfavorably biased towards researchers and institutions in the non-profit sector. For example, the Centers for Medicare & Medicaid Services (CMS) collects administrative data on Medicare and Medicaid enrollees, and such data can be accessed through formal data applications. However, the CMS does not allow for-profit entities to receive physical copies of the data regardless of the purpose of data access whereas such restrictions are not applicable to academic institutions. In current CMS rule, for-profit entities can only access the data through an online virtual data center for which the costs are often considerably higher than purchasing physical data copies. It is not clear how such restrictions towards for-profit entities are justified or whether CMS has any legal standing to impose them.

10. How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions?"

Qualifications for researchers should be based on education, publications, and past experience. In addition, a review of the methods of the proposed work should be informative regarding whether the researchers have the qualifications to complete the work (based on their ability to scope the work). Whether an institution is non-profit or for-profit should have no bearing on the determining a researcher's qualifications.

All data should be made available to qualified researchers and institutions so long as it is clear the research will be beneficial to public health and that it will not violate any person's privacy.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0034
Comment on FR Doc # 2016-22002

Submitter Information

Name: Martin Slann

General Comment

CEP is orwellian and totalitarian. It enables the federal government to assemble data, much of them personal, on American citizens from the beginning of their lives. And for what purpose? If anything, the government already has more than enough information on each person living here to thoroughly track them throughout their school years and beyond.

PUBLIC SUBMISSION

As of: August 04, 2017
Received: November 07, 2016
Status: Posted
Posted: November 16, 2016
Tracking No. 1k0-8swf-3n7b
Comments Due: December 14, 2016
Submission Type: Web

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0035
Comment on FR Doc # 2016-22002

Submitter Information

Name: Karen Bracken
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   Ocoee, TN, 37361
Email: karen.bracken@reagan.com

General Comment

Are you kidding me? This is totally unconstitutional. When parents find out about this they will pull their kids from the system as fast as possible. This smells of corporate fascism. This is an attempt to monitor all human behavior and has nothing to do with education. We educated the greatest minds in the history of world from the kitchen table and one room school houses. This is a complete invasion of privacy and parents will no longer allow this to continue. Please see the enclosed document. Anything other than what is proposed in this document will be considered an attack on the American people in an effort to monitor our children and all American citizens. This is a total violation of the Constitution. You might want to get out a copy and read it.

Attachments

CEP oct 21 2016 written-public-comments

September 9, 2016

Dr. Katharine G. Abraham, Chair
Mr. Ron Haskins, Co-Chair
Evidence-Based Policymaking Commission
U.S. Census Bureau
4600 Silver Hill Road
Suitland, MD 20746

Dear Chairwoman Abraham and Co-Chairman Haskins,

We are writing to encourage you to consider including the attached policy recommendations in your final report to Congress and the Administration.

We believe that the Commission can help invest taxpayer dollars in what works by assisting policymakers at all levels of government in:

- Building evidence about the practices, policies and programs that will achieve the most effective and efficient results so that policymakers can make better decisions;
- Investing limited taxpayer dollars in practices, policies and programs that use data, evidence and evaluation to demonstrate they work; and
- Directing funds away from practices, policies, and programs that consistently fail to achieve measurable outcomes.

Although the Evidence-Based Policymaking Commission Act of 2016 directs the Commission to study and report on several important topics including data privacy and data sharing, our attached policy proposals focus on the provision that directs the Commission to "make recommendations on how best to incorporate outcomes measurement, institutionalize randomized controlled trials, and rigorous impact analysis into program design."

We thank you in advance for your consideration of our recommendations.

Sincerely,

Actionable Intelligence for Social Policy (AISP)
America Forward
Center for Employment Opportunities
Center for Research and Reform in Education, Johns Hopkins University
KIPP
REDF
Results for America
Sorenson Center for Impact
Success for All Foundation
Sunlight Foundation

cc: Members of the Evidence-Based Policymaking Commission

INVEST IN WHAT WORKS COALITION RECOMMENDATIONS

Data Collection

- **Federal Data Infrastructure**: The Commission should consider recommending that Congress and the Administration provide sufficient funding to help the U.S. Census Bureau accelerate the process of acquiring key administrative data-sets from local, state, and federal agencies, and strengthen its infrastructure for processing, standardizing, linking, and making data available to other government agencies and independent researchers via data use agreements with strong privacy protections. As part of this effort, the Census Bureau should develop an inventory of data-sets at the local, state, and federal levels and make this inventory accessible to government agencies and independent researchers.

- **Federal Data Inventories**: The Commission should consider recommending that Congress and the Administration codify into law what is already required by the May 2013 Executive Order by passing the OPEN Government Data Act. This legislation would mandate that every federal agency create an enterprise data inventory of all data sets held by the agency and make these lists public in machine-readable formats with strong privacy protections.

- **Federal Data Information Technology:** The Commission should consider recommending that Congress and the Administration provide sufficient funding to allow every federal agency to update and modernize its IT infrastructure that supports data collection, analysis, sharing, and usage so that data can be appropriately structured, protected, analyzed and disclosed in line with the updated information policy of the United States. A 2016 report by the U.S. General Accountability Office highlighted the urgent need for the U.S. government to modernize its aging legacy systems.

- **Workforce Data**: The Commission should recommend that Congress and the Administration allow the linking of workforce datasets (including but not limited to state and federal unemployment insurance and new hires data sets) to improve the effectiveness and efficiency of publicly-supported workforce development programs, as long as the linking is consistent with strong privacy protections. For example, many states cannot determine the impact of their job training programs without the ability to link their participant information with information about wage earnings across multiple states where participants obtain employment.

- **State Education and Workforce Data Systems**: The Commission should recommend that Congress and the Administration support the enhancement of the existing State Longitudinal Data Systems (SLDS) program administered by the U.S. Department of Education, which helps states integrate education and workforce data, and the proposed expansion of the Workforce Data Quality Initiative that would help build state and local capacity to track employment and educational outcomes of Workforce Innovation and Opportunity Act program participants, including those with disabilities, and provide information about job success rates and training programs.

- **Federal Education Data Identifiers**: The Commission should consider recommending that Congress and the Administration direct federal agencies to standardize the way they collect

2

and share student-level identifiers (e.g., de-identified but encrypted) so that researchers can more effectively evaluate publicly-supported education and workforce development programs. This information should be housed in one federal agency in order to promote appropriate sharing and usage of this standardized data.

- **Federal Programmatic Data:** The Commission should consider recommending that Congress and the Administration authorize every federal agency to set aside 1% of their program funds for program evaluations that generate programmatic outcomes data that can help make federal programs more effective and efficient.

Data Analysis

- **Data Leadership and Infrastructure**: The Commission should consider recommending that Congress and the Administration direct every federal agency to have a senior staff member (i.e., Chief Evaluation Officer or equivalent position) with the authority, staff, and budget to develop important programmatic data through the evaluation of its major programs and to use this programmatic data and available administrative data to inform the agency's policies and improve its programs.

Data Sharing

- **Local and State Data Systems**: The Commission should consider recommending that Congress and the Administration clarify that local and state agencies can invest federal program funds in strengthening their data infrastructures for processing, standardizing, linking, and making data available to other government agencies and independent researchers via data use agreements with strong privacy protections.

- **Federal Education Data Infrastructure:** The Commission should consider recommending that Congress and the Administration strengthen the U.S. Department of Education's (ED's) data infrastructure, including the hiring and training of key analytic staff, to manage the collection, quality, release, and analysis of education data with strong privacy protections and the support the proposed InformED initiative that would pull together ED's diverse array of data and studies on a particular topic, and allow open data access to help unlock answers to pressing education questions and needs.

Data Usage

- "**What Works" Clearinghouses:** The Commission should consider recommending that Congress and the Administration direct every federal agency to develop a "What Works" clearinghouse or evidence exchange with the purpose of making evaluation reports available to the public.

- **Performance Management/Continuous Improvement:** The Commission should consider recommending that Congress and the Administration direct every federal agency to develop and operate a performance management system with clear and prioritized outcome-focused

goals and aligned program objectives and that frequently collects, analyzes, and uses administrative and programmatic outcomes data to improve outcomes, return on investment, and other dimensions of performance.

- **<u>Federal Grant Programs</u>**: The Commission should consider recommending that Congress and the Administration direct every federal agency to use evidence of effectiveness, including impact analysis and other outcomes measurements based on high-quality administrative and programmatic outcomes data, when allocating funds from its 5 largest competitive and non-competitive grant programs.

- **<u>Evaluation and Research</u>**: The Commission should consider recommending that Congress and the Administration direct every federal agency to have an evaluation policy, evaluation plan, and research/learning agenda which ensures that the agency has an intentional approach to the collection, analysis, sharing, and usage of administrative and programmatic data and publicly release the findings of all completed evaluations to improve the effectiveness and efficiency of federal programs.

- **<u>Repurpose for Results</u>**: The Commission should consider recommending that Congress and the Administration direct every federal agency to use its administrative and programmatic data to determine when to shift funds away from practices, policies, and programs which consistently fail to achieve desired outcomes and toward evidence-based, results-driven solutions.

FEDERAL INVEST IN WHAT WORKS INDEX (2016)

RESULTS FOR AMERICA

CRITERIA	Administration for Children and Families (HHS)	Corporation for National and Community Service	Millennium Challenge Corporation	U.S. Agency for International Development	U.S. Department of Education	U.S. Dept. of Housing & Urban Development	U.S. Department of Labor
TOTAL SCORE (Out of a possible 100)*	**80**	**72**	**85**	**83**	**80**	**76**	**80**
1. Leadership: Did the agency have a senior staff member(s) with the authority, staff, and budget to evaluate its major programs and inform policy decisions affecting them in FY16?	8	8	8	8	8	8	9
2. Evaluation and Research: Did the agency have an evaluation policy, evaluation plan, and research/learning agenda(s) and did it publicly release the findings of all completed evaluations in FY16?	9	8	9	8	8	8	9
3. Resources: Did the agency invest at least 1% of program funds in evaluations in FY16? *(Note: Meeting this criteria requires both Agency and Congressional action.)*	7	7	10	10	7	6	8
4. Performance Management/Continuous Improvement: Did the agency implement a performance management system with clear and prioritized outcome-focused goals and aligned program objectives and measures, and did it frequently collect, analyze, and use data and evidence to improve outcomes, return on investment, and other dimensions of performance in FY16?	8	7	8	8	8	9	9
5. Data: Did the agency collect, analyze, share, and use high-quality administrative and survey data - consistent with strong privacy protections - to improve (or help other entities improve) federal, state, and local programs in FY16?	9	8	9	9	9	9	9
6. Common Evidence Standards/What Works Designations: Did the agency use a common evidence framework, guidelines, or standards to inform its research and funding decisions and did it disseminate and promote the use of evidence-based interventions through a user-friendly tool in FY16?	9	8	8	8	9	7	9
7. Innovation: Did the agency have staff, policies, and processes in place that encouraged innovation to improve the impact of its programs in FY16?	8	7	9	9	8	8	7
8. Use of Evidence in 5 Largest Competitive Grant Programs: Did the agency use evidence of effectiveness when allocating funds from its 5 largest competitive grant programs in FY16?	7	9	8[1]	8[2]	8	7	7
9. Use of Evidence in 5 Largest Non-Competitive Grant Programs: Did the agency use evidence of effectiveness when allocating funds from its 5 largest non-competitive grant programs in FY16? *(Note: Meeting this criteria requires both Agency and Congressional action.)*	7	7	N/A	N/A	8	7	7
10. Repurpose for Results: In FY16, did the agency shift funds away from any practice, policy, or program which consistently failed to achieve desired outcomes? *(Note: Meeting this criteria requires both Agency and Congressional action.)*	8	3	8	7	7	7	6

* These scores are based on information provided by the 7 federal departments and agencies included in this index. You can find this background information - as well as a description of how RFA developed these scores - at http://results4america.org/policy/invest-in-what-works-indexes/
[1] Since MCC only administers competitive grant programs, its total possible score was 20 for Question #8 and 0 for question #9.
[2] Since USAID only administers competitive grant programs, its total possible score was 20 for Question #8 and 0 for question #9.

RESULTS FOR AMERICA — FEDERAL INVEST IN WHAT WORKS INDEX (2016)

EVIDENCE / EVALUATION CRITERIA	
1. Leadership: Did the agency have a senior staff member(s) with the authority, staff, and budget to evaluate its major programs and inform policy decisions affecting them in FY16?	**ACF:** • In late FY15, ACF established the new career position of Deputy Assistant Secretary for Planning, Research, and Evaluation to oversee its Office of Planning, Research, and Evaluation (OPRE) and support evaluation and other learning activities across the agency. ACF's budget for research and evaluation in FY16 is approximately $142 million. ACF's evaluation policy gives the OPRE Director (now Deputy Assistant Secretary) "authority to approve the design of evaluation projects and analysis plans; and…authority to approve, release and disseminate evaluation reports." OPRE's staff of 42 includes experts in research and evaluation methods as well as ACF programs and policies and the populations they serve. OPRE engages in on-going collaboration with program office staff and leadership to interpret research and evaluation findings and to identify their implications for programmatic and policy decisions. OPRE also provides written summaries of emerging findings and holds monthly meetings with agency and program leadership to discuss their implications. • While OPRE oversees most of ACF's evaluation activity and provides overall coordination, some ACF program offices also sponsor evaluations. ACF's evaluation policy states, "In order to promote quality, coordination and usefulness in ACF's evaluation activities, ACF program offices will consult with OPRE in developing evaluation activities. Program offices will discuss evaluation projects with OPRE in early stages to clarify evaluation questions and methodological options for addressing them, and as activities progress OPRE will review designs, plans, and reports. Program offices may also ask OPRE to design and oversee evaluation projects on their behalf or in collaboration with program office staff." **CNCS:** • CNCS's Office of Research and Evaluation Director (R&E) oversees the development of social science research designed to measure the impact of CNCS programs and shape policy decisions; encourage a culture of performance and accountability in national and community service programs; provide information on volunteering, civic engagement, and volunteer management in nonprofit organizations; and assist in the development and assessment of new initiatives and demonstration projects. The R&E Director, who is overseeing R&E's $4 million budget and a staff of 9 in FY16, is a member of CNCS's Leadership Team and Policy Council. The R&E Director also meets regularly with CNCS Program Directors to identify areas where evidence can be generated and used for various decisions. • The R&E Director meets annually with all CNCS program offices to identify priorities and negotiate which pools of funds are need to support the year's priorities. The FY16 plan was developed through a series of formal and informal conversations. **MCC:** • MCC's Monitoring and Evaluation (M&E) Division, which falls within the Department of Policy and Evaluation (DPE), has a staff of 23 and an FY16 budget of $20.6 million in due diligence (DD) funds to be used directly for measuring high-level outcomes and impacts in order to assess the effects of its programs and activities. Departments throughout the agency have a total of $75 million in DD funds in FY16. The M&E Managing Director as well as the Departmental Vice President have the authority to execute M&E's budget and inform policy decisions affecting independent evaluations. The M&E Managing Director participates in technical reviews of proposed investments as well as in regular monitoring meetings in order to inform policy and investment decisions. The Vice President sits on the Agency's Investment Management Committee which examines the evidence base for each investment before it is approved by the MCC Board and conducts regular oversight over the compact (i.e., grant program) development process.

RESULTS FOR AMERICA — FEDERAL INVEST IN WHAT WORKS INDEX (2016)

EVIDENCE / EVALUATION CRITERIA	
1. Leadership: Did the agency have a senior staff member(s) with the authority, staff, and budget to evaluate its major programs and inform policy decisions affecting them in FY16?	**USAID:** • USAID's Office of Learning, Evaluation and Research (LER) in the Bureau for Policy, Planning, and Learning (PPL) provides guidance, tools and technical assistance to USAID staff and partners to support monitoring, evaluation and learning practices, some of which can be found online. The LER Director oversaw approximately 20 staff and a $17.5 million budget in FY15. (The FY16 budget is estimated to be close to the same level as in FY2015.) • LER holds several contracts that USAID missions and offices can use for building staff capacity in monitoring, evaluation and learning, and for commissioning evaluations and monitoring services directly. For example, LER manages the Monitoring and Evaluation Services Indefinite Delivery Indefinite Quantity (EVAL-ME IDIQ) contract, which allows missions, using their own funds, to competitively bid statements of work among 14 pre-approved companies that have been selected for their monitoring and evaluation capabilities, shortening and simplifying the process for contracting an independent evaluation team. LER also manages a classroom training program in monitoring and evaluation for USAID staff. • The LER Director participates in the USAID Administrator's Leadership Council (ALC), a senior level bi-weekly meeting chaired by the USAID Administrator and attended by Assistant Administrators and select Agency Senior Staff, when the agenda includes issues related to evaluation. The LER Director also informs policy decisions across the agency by providing input into working groups and reviewing statements, draft memos and other policy products. • One of LER's primary objectives is to build USAID's capacity in the field of Monitoring, Evaluation and Learning. For example, under a contract to build Monitoring and Evaluation capacity at USAID (MECap) individual USAID Offices and Missions can access Monitoring & Evaluation Fellows and Learning Fellows. These fellows work with a specific mission or office for 6 months to up to 2 years. MECap can also field experts for short-term technical assistance for a specific monitoring or evaluation-related task, like evaluation design or developing a mission-wide performance management plan. Another contract held by LER, LEARN, provides support to missions to more intentionally learn from monitoring, evaluation and experience and apply that learning. To build staff capacity in designing or commissioning impact evaluations funded by missions or offices, LER has hosted clinics on Impact Evaluation to provide USAID field Missions with tools, resources and hands-on support to design an impact evaluation for a future program activity. In addition to providing general capacity-building services in the form of training, clinics, technical assistance, and fellowships, LER staff occasionally manage evaluations directly or participate on evaluation teams for evaluations funded by LER or for those funded by other parts of the Agency. LER also coordinates several cross-agency working groups organized to support Learning champions and monitoring and evaluation specialists throughout the Agency. **USED:** • ED's Institute of Education Sciences (IES), with a budget of $618 million in FY16, supports research and conducts evaluations of ED's major programs, including impact evaluations. The Director of IES and the Commissioner of the National Center for Education Evaluation and Regional Assistance (NCEE) are supported by 10 staff who oversee these evaluations. The Office of Planning, Evaluation, and Policy Development's (OPEPD) Program and Policy Studies Services (PPSS) has a staff of 20 and serves as the Department's internal analytics office. PPSS conducts short-term evaluations to support continuous improvement of program implementation and works closely with program offices and senior leadership to inform policy decisions with evidence. While some evaluation funding – such as that for Special Education Studies and Evaluations – is appropriated to IES ($10.8 million in FY16), most evaluations are supported by funds appropriated to ED programs. NCEE and PPSS staff work closely with program offices to design program evaluations that reflect program priorities and questions. Both IES and PPSS provide regular briefings on results to help ensure information can be used by program offices for program improvement. • Both IES and PPSS sit on ED's Evidence Planning Group (EPG) with other senior staff from the ED's Office of Planning, Evaluation, and Policy Development (OPEPD) and the Office of Innovation and Improvement (OII). EPG reviews and advises programs and Department leadership on how evidence can be used to improve Department programs. Senior officials from IES, OII, and PPSS are part of ED's leadership structure and weigh in on major policy decisions. They play leading roles in the formation of the Department's annual budget requests, recommendations around grant competition priorities, including evidence, and providing technical assistance to Congress to ensure that evidence informs policy design.

FEDERAL INVEST IN WHAT WORKS INDEX (2016)

RESULTS FOR AMERICA

EVIDENCE / EVALUATION CRITERIA	
1. Leadership: Did the agency have a senior staff member(s) with the authority, staff, and budget to evaluate its major programs and inform policy decisions affecting them in FY16?	USHUD: • HUD's Office of Policy Development & Research (PD&R) informs HUD's policy development and implementation by conducting, supporting, and sharing research, surveys, demonstrations, program evaluations, and best practices. PD&R achieves this mission through three interrelated core functions: (1) collecting and analyzing national housing market data (including with the Census Bureau); (2) conducting research, program evaluations, and demonstrations; and (3) providing policy advice and support to the HUD Secretary and program offices. PD&R is led by an Assistant Secretary who oversees six offices, about 149 staff including a team of field economists that work in HUD's 10 regional offices across the country, and a budget of $108.1 million in FY16. The Assistant Secretary ensures that evidence informs policy development through frequent personal engagement with other principal staff, the Secretary, and external policy officials; HUDstat performance review meetings (see Question #4 below for a description); speeches to policy audiences, sponsorship of public research briefings, and policy implications memoranda. The Assistant Secretary also regularly engages with each HUD program office to ensure that metrics, evaluations, and evidence inform program design, budgeting, and implementation. • Periodic PD&R meetings with program offices enable knowledge-sharing about evaluation progress and emerging needs for research, evaluation, and demonstrations. In recent years, Congress has authorized support for evaluations from program resources through set-asides, transfer authority, and supplemental appropriations to implement demonstrations. USDOL: • DOL's Chief Evaluation Officer is a senior official with responsibility for all activities of the Chief Evaluation Office (CEO), and coordination of evaluations Department-wide. CEO includes 15 full-time staff and contractors plus 1-2 detailees at any given time. The CEO is responsible for the appropriated budget for the Departmental Program Evaluation ($10 million in FY16) and the Department's evaluation set-aside funds ($30 million in FY16). In FY16, the CEO will directly oversee an estimated $40 million in evaluation funding and collaborate with DOL agencies on additional evaluations being carried out through an additional $15 million to evaluate Employment and Training Administration (ETA) pilots, demonstrations research and evaluations of large grant programs including the Performance Partnership Pilots (P3), American Apprenticeship Initiative (AIA), the Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grant Program, and Reentry Programs for Ex-Offenders. The CEO also participates actively in the performance review process during which each operating agency meets with the Deputy Secretary to review progress on performance goals established for the year required under Government Performance and Results Act (GPRA). The CEO's role is to incorporate evidence and evaluation findings as appropriate and to identify knowledge gaps that might be filled by evaluations or convey evidence that can inform policy and program decisions or performance.

FEDERAL INVEST IN WHAT WORKS INDEX (2016)

RESULTS FOR AMERICA

EVIDENCE / EVALUATION CRITERIA	
2. Evaluation and Research: Did the agency have an evaluation policy, evaluation plan, and research/ learning agenda(s) and did it publicly release the findings of all completed evaluations in FY16?	ACF: • ACF's evaluation policy, established in 2012, addresses the principles of rigor, relevance, transparency, independence, and ethics and requires ACF program, evaluation, and research staff to collaborate. For example, the policy states, "ACF program offices will consult with OPRE in developing evaluation activities." And, "There must be strong partnerships among evaluation staff, program staff, policy-makers and service providers." • ACF's Office of Planning, Research, and Evaluation (OPRE) proposes an evaluation plan to the Assistant Secretary each year in areas in which Congress has provided authority and funding to conduct research and evaluation. • ACF's annual portfolio reviews describe recent work and ongoing learning agendas in the areas of family self-sufficiency, child and family development, and family strengthening, including work related to child welfare, child care, Head Start, Early Head Start, strengthening families, teen pregnancy prevention and youth development, home visiting, self-sufficiency, welfare and employment. Examples include findings from Head Start CARES; the BIAS project; multiple reports from the first nationally representative study of early care and education in over 20 years; early findings on the Maternal, Infant and Early Childhood Home Visiting program; and a report on challenges and opportunities in using administrative data for evaluation. • ACF's evaluation policy requires that "ACF will release evaluation results regardless of findings... Evaluation reports will present comprehensive findings, including favorable, unfavorable, and null findings. ACF will release evaluation results timely – usually within two months of a report's completion." ACF has publicly released the findings of all completed evaluations to date. In 2015, OPRE released nearly 120 publications. CNCS: • CNCS has an evaluation policy that presents 5 key principles that govern the agency's planning, conduct, and use of program evaluations: rigor, relevance, transparency, independence, and ethics. • CNCS has an evaluation plan/learning agenda that is updated annually based on input from agency leadership as well as from emerging evidence from completed studies. This agenda was shared with the CNCS Board in 2015 and is reflected in the CNCS Congressional Budget Justification for Fiscal Year 2016 (pp. 55-56) and Fiscal Year 2017 (pp. 5-6, 55-56). CNCS's R&E Office is currently developing scopes of work and will meet with program officers in April 2016 to discuss them. • CNCS creates four types of reports for public release: research reports produced directly by research and evaluation staff, research conducted by third party research firms and overseen by research and evaluation staff, reports produced by CNCS-funded research grantees, and evaluation reports submitted by CNCS-funded program grantees. All reports completed and cleared internally are posted to the Evidence Exchange. CNCS expects to release 34 additional reports in FY16, and all evaluations are expected to be cleared. • In FY16 CNCS developed Evaluation Core Curriculum Courses which are presented to its grantees through a webinar series and is available on the CNCS website along with other evaluation resources. The courses are designed to help grantees and other stakeholders easily access materials to aid in conducting or managing program evaluations.

FEDERAL INVEST IN WHAT WORKS INDEX (2016)

RESULTS FOR AMERICA

EVIDENCE / EVALUATION CRITERIA	
2. Evaluation and Research: Did the agency have an evaluation policy, evaluation plan, and research/ learning agenda(s) and did it publicly release the findings of all completed evaluations in FY16?	MCC: • MCC has developed a Policy for Monitoring and Evaluation of Compacts and Threshold Programs in order to ensure that all programs develop and follow comprehensive Monitoring & Evaluation (M&E) plans that adhere to MCC's standards. The monitoring component of the M&E Plan lays out the methodology and process for assessing progress towards Compact (i.e., grant) objectives. It identifies indicators, establishes performance targets, and details the data collection and reporting plan to track progress against targets on a regular basis. The evaluation component identifies and describes the evaluations that will be conducted, the key evaluation questions and methodologies, and the data collection strategies that will be employed. Pursuant to MCC's M&E policy, every project must undergo an independent evaluation and analysis to assess MCC's impact. Once evaluation reports are finalized, they are published on the MCC Evaluation Catalog. To date, fifty-three interim and final reports have been publicly released, with several additional evaluations expected to be completed and released in the coming months. MCC also produces periodic reports for internal and external consumption on results and learning, and holds agency-wide sessions that help to translate evaluation results into lessons learned for future compact development. Finally, in February 2016, MCC launched "NEXT: A Strategy for MCC's Future" which outlines new strategic directions on how it will invest more in strengthening feedback systems to harness this learning for ongoing adaptation of design and implementation, both for its own effectiveness and for the benefit of country partners and others in the development community. NEXT is designed to be a five-year strategic plan for MCC, but also includes MCC's learning agenda by incorporating agency-wide learning and knowledge goals to be pursued within that timeframe USAID: • USAID has an agency-wide Evaluation Policy. The agency just released a report to mark the five-year anniversary of the policy. • USAID field missions are required to have an evaluation plan, and all USAID missions and offices provide an internal report on an annual basis on completed, ongoing and planned evaluations, including evaluations planned to start anytime in the next three fiscal years. USAID provides a Performance Management Plan (PMP) Toolkit to assist missions worldwide. • Given USAID's decentralized structure, individual programs, offices, bureaus and missions may develop learning agendas, which several have done, including the USAID's Bureau for Food Security for the US government's Feed the Future initiative and USAID's Democracy, Human Rights, and Governance (DRG) Center. All Washington Bureaus have annual evaluation action plans that look at quality and use and identify challenges and the priorities for the year ahead. • All final USAID evaluation reports are available on the Development Experience Clearinghouse except for approximately five percent of evaluations completed each year that are not public due to principled exceptions to the presumption in favor of openness guided by OMB Bulletin 12-01 Guidance on Collection of U.S. Foreign Assistance Data. • USAID is currently updating its operational policy for planning and implementing country programs. A key change in the policy is that missions will include a learning plan as part of their five-year strategic plan, also known as the CDCS. The plan will outline how missions will incorporate learning into their programming, including activities like regular portfolio reviews, evaluation tracking and dissemination plans, and other analytic processes to better understand the dynamics of their programs and their country contexts.

RESULTS FOR AMERICA — FEDERAL INVEST IN WHAT WORKS INDEX (2016)

EVIDENCE / EVALUATION CRITERIA

2. Evaluation and Research: Did the agency have an evaluation policy, evaluation plan, and research/learning agenda(s) and did it publicly release the findings of all completed evaluations in FY16?

USED:
- ED's Institute of Education Sciences (IES) supports research and conducts evaluations of ED's major programs. IES' evaluation policies are set by the IES Standards and Review Office, addressing issues of scientific quality, integrity, and timely release of reports. Related, the National Board for Education Sciences, IES's advisory board, has approved policies for Peer Review, which are implemented by the Standards and Review Office.
- EPG works with program offices and ED leadership on the development of ED's annual evaluation plan. This happens through the Department's annual spending plan process and through identification of high priority evaluations for use of the pooled evaluation authority. IES and PPSS work with programs to design and share results from relevant evaluations that help with program improvement.
- ED's current evaluations constitute its learning agenda.
- ED's evaluations are posted on the IES website and the PPSS website. See FY15 Annual Performance Report and FY17 Annual Performance Plan for a list of ED's current evaluations. IES publicly releases findings from all of its completed, peer-reviewed evaluations on the IES website and also in the Education Resources Information Clearinghouse (ERIC).
- ED's supports research through IES's National Center for Education Research (NCER), which makes grants for prekindergarten through postsecondary research and IES' National Center for Special Education Research (NCSER), which sponsors a comprehensive program of special education research designed to expand the knowledge and understanding of infants, toddlers, children, and young adults with disabilities. IES also manages the Regional Educational Laboratory (REL) program, which supports districts, states, and boards of education throughout the United States to use research in decision making.

USHUD:
- HUD's evaluation policy (see pp. 1–6, 21, 23), which guides HUD's Research Roadmap described below, includes reaching out to internal and external stakeholders through a participatory approach; making research planning systematic, iterative, and transparent; focusing on research questions that are timely, forward-looking, policy-relevant, and leverage HUD's comparative advantages and partnership opportunities; aligning research with HUD's strategic goals; and using rigorous research methods including program demonstrations with randomized controlled trials as appropriate.
- HUD's Office of Policy Development and Research (PD&R) has developed the Research Roadmap FY14-FY18, (see pp. 6-20) a strategic, five-year plan for priority program evaluations and research to be pursued given a sufficiently robust level of funding. PD&R also integrated its evaluation plan into HUD's FY14-FY18 Strategic Plan (see pp. 57-63) to strengthen the alignment between evaluation and performance management. During FY16, PD&R is using similar principles and methods to refresh the Roadmap to address emerging research topics.
- HUD also employs its role as convener to help establish frameworks for evidence, metrics, and future research.
- According to the Research Roadmap FY14-FY18, (see p. 28), as part of HUD's annual performance report required by GPRA, "agencies should describe findings from agency-funded evaluations or other research completed during the prior fiscal year." Further, "Agencies are expected to have a web page on the agency's evaluations or links to other evaluations relevant to the agency's work with summaries of the findings and specific citations." PD&R publishes and disseminates evaluations in a timely fashion through these and other means, and also follows a policy of including language in research and evaluation contracts that allows researchers to independently publish results, even without HUD approval, after not more than 6 months.

USDOL:
- DOL has a formal Evaluation Policy Statement that formalizes the principles that govern all program evaluations in the Department, including methodological rigor, independence, transparency, ethics, and relevance. In addition, the Chief Evaluation Office publicly communicates the standards and methods expected in DOL evaluations in formal procurement statements of work.
- DOL also develops, implements, and publicly releases an annual Evaluation Plan (i.e., Department-level learning agenda), as do each of DOL's 17 operating agencies. The agency learning agendas form the basis for the DOL's Evaluation Plan. The 2016 Evaluation Plan was released for public comment in the Federal Register and is posted on the CEO website.
- All DOL reports and findings are publicly released and posted on the CEO website. DOL agencies also post and release their reports.

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RESULTS FOR AMERICA — FEDERAL INVEST IN WHAT WORKS INDEX (2016)

EVIDENCE / EVALUATION CRITERIA	

3. Resources: Did the agency invest at least 1% of program funds in evaluations in FY16?
 	
(Note: Meeting this criteria requires both Agency and Congressional action.)
	ACF:
	• In FY16, ACF plans to spend $138 million on evaluations, representing 0.3% of ACF's $53 billion budget in FY16 (in addition to investments in evaluations by ACF grantees).
	• The Administration's FY17 budget request seeks authority for numerous new investments in learning, including set-asides of up to 1.5% of the Social Services Block Grant program ($18.5m in FY17, including $10 million for a demonstration and evaluation on supplying diapers to low-income families and $8.5 million for research and evaluation in FY17) and 1% of the Community Services Block Grant program ($3.5 million in FY17) for evaluations.
	
	CNCS:
	• CNCS plans to spend a total of $5.1 million (representing .46% of CNCS's $1.1 billion budget in FY16) in evaluation and evaluation capacity building activities (R&E evaluation and program funds combined), including:
	  - $1.2 million of Senior Corps funding for the supplemental award, program funding used for evaluation and evidence purposes versus funding given to sponsor organizations;
	  - $400,000 in Senior Corps funds for the longitudinal survey in FY16, an evaluation of the volunteers who participate in Senior Corps programs (examining their health and well-being outcomes over time);
	  - $500,000 in supporting reviews of grantee evaluation plans and reports, including for research & evaluation expertise to review studies submitted by grantees applying for funding; and
	  - $3 million in evaluation funds and SIF funds to support program evaluations and technical assistance for grantees to conduct evaluations.
	
	MCC:
	• In FY15, M&E invested over $17.1 million on monitoring and evaluation of Compact projects, which amounted to 2.9% of Compact spending for FY15 ($570.7 million). Calculations are still ongoing for FY16. However, MCC expects to disburse amounts similar to FY15. This is reflected in numbers for Q1 & Q2 in FY16, as of March 30, which show M&E investments of $7.5 million.
	
	USAID:
	• In FY15, USAID missions and offices reported completing 244 evaluations with resources totaling approximately $69.3 million and managing another 251 ongoing evaluations, many that span more than one year, with total ongoing budgets estimated to reach $168.9 million. Overall spending on evaluations completed or ongoing in FY15 ($238.2 million) represents about 1.1% of USAID's $21.1 billion FY15 program budget.
	• This amount does not include the Office of Learning, Evaluation, and Research budget which primarily focuses on evaluation capacity building and technical assistance ($17.5 million FY15) or the investment in the Demographic and Health Surveys (DHS) ($189 million total in FY13-FY18) or surveys funded by other sector programs that often make up some of the underlying data used in many evaluations.

RESULTS FOR AMERICA — **FEDERAL INVEST IN WHAT WORKS INDEX (2016)**	
EVIDENCE / EVALUATION CRITERIA	
3. **Resources**: Did the agency invest at least 1% of program funds in evaluations in FY16? *(Note: Meeting this criteria requires both Agency and Congressional action.)*	USED: • There are a variety of ways that ED generally supports evaluations as well as evaluation technical assistance and capacity-building. In FY15 and FY16, ED has the authority to reserve up to 0.5% of ESEA funds – except Title I funds, Title III funds, and funds for programs that already have an evaluation provision – to evaluate ESEA programs (which RFA estimates at $41.3 million for FY15). In FY15, ED pooled $8.8 million to conduct evaluations that will build new evidence about the following programs: ESEA Title I, Part A; the migrant education program; and the Indian Education LEA Grants Program; and also provided continued support for program evaluations on ESEA Title I, Part A; ESEA Title I, Part D; and ESEA Title III, which began with FY14 pooled funding. The Every Student Succeeds Act (ESSA) of 2015, which reauthorized ESEA, continues the pooling authority and includes Title III as an allowable program from which to pool funds. ESSA also authorizes $710,000 for an evaluation of Title I for FY17-FY20. ED spent over $60 million on program evaluations in FY15. • In addition, many EDq programs are authorized to support national activities, including program evaluations, and some programs encourage their grantees to conduct project-level evaluations. One of the key lessons from i3 has been that high-quality technical assistance for grantees on project-level evaluations is critical to producing credible information on project outcomes. In FY15 i3 invested more than $4 million of its appropriation in evaluation technical assistance – virtually no other discretionary grant program has the authority or means to fund such a robust vehicle for technical assistance. ED, with the expertise of IES, has begun to pilot less expensive approaches to evaluation technical assistance for programs like First in the World ($1.5 m), and Supporting Effective Educator Development ($~800,000), which also tasks its grantees with producing rigorous project-level evaluations. • According to RFA estimates, overall spending on evaluation ($60 million in FY15) and evaluation technical assistance and capacity-building ($6.3 million in FY15) represents 0.1% of ED's $67.1 billion discretionary budget in FY15.

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FEDERAL INVEST IN WHAT WORKS INDEX (2016)

RESULTS FOR AMERICA

EVIDENCE / EVALUATION CRITERIA	
3. Resources: Did the agency invest at least 1% of program funds in evaluations in FY16? *(Note: Meeting this criteria requires both Agency and Congressional action.)*	**USHUD**: • For FY16, Congress appropriated $50 million for core research activities; $10 million for research, evaluations, and demonstrations; and $25 million for technical assistance in the Research & Technology account. This $85 million total, half of the requested amount, equals 0.19 percent of HUD's $45.5 billion of FY16 program budget authority, net of Salaries and Expenses. The $10 million devoted to research, evaluations, and demonstrations is about 12 percent of the $85 million total. Additionally, much of the $50 million is used for surveys (especially for the American Housing Survey) and other data acquisition that indirectly support evaluation of HUD's mission activities in domains such as affordable housing and housing finance. • In FY10, Congress authorized the transfer of up to 1% of funds from individual HUD program funds to the Transformation Initiative (TI) Fund for: (1) research, evaluation, and program metrics; (2) program demonstrations; (3) technical assistance; and (4) information technology. After FY11, HUD no longer sought to fund information technology with the TI Fund, and Congress has not provided requested levels of evaluation funding or, since FY14, supported transfers to TI **USDOL**: • In FY 16, DOL's CEO will directly oversee an estimated $40 million in evaluation funding. Additionally CEO will collaborate with DOL agencies on additional evaluations being carried out, with approximately $15 million to evaluate Employment and Training Administration (ETA) pilots, demonstrations and research and evaluations of large grant programs, including, for example, the Performance Partnership Pilots (P3), American Apprenticeship Initiative (AIA), the Trade Adjustment Assistance Community College and Career Training (TAACCCT) Grant Program, and Reentry Programs for Ex-Offenders. The combined amount of $55 million represents approximately .44% of DOL's FY16 discretionary budget of $12.4 billion. (For many of the largest programs, however, up to 5% of their budgets is dedicated to program evaluation and related activities). • DOL's Chief Evaluation Office directly funds evaluations and also combines CEO funds with agency funds to jointly sponsor some evaluations. The largest discretionary programs can use program funds for evaluations and technical assistance, often up to 5% by statute. For example, three separate rounds of grants funded by H1-B worker visa fees totaling about $400 million in FY16 support training particular populations, such as high school students transitioning to work, long-term unemployed workers, and apprenticeship training, and between 3% and 7% of these grant funds (at least $25 million) is expected to be invested in evaluations in FY16. Another example, in FY14 and FY15, up to 5% of the funds available for the workforce innovation activities were used for technical assistance and evaluations related to the projects carried out with these funds. The legislation provided further that the Secretary may authorize awardees to use a portion of awarded funds for evaluation, upon the Chief Evaluation Officer's approval of an evaluation plan. Further, several DOL agencies also have separate evaluation appropriations. DOL studies funded through individual agencies are also coordinated with DOL's CEO. • The Administration's FY14-FY17 budget requests recommended allowing the U.S. Secretary of Labor to set aside up to 1% of all operating agencies' budgets for evaluations, coordinated by CEO. In FYs 2012-2015, Congress authorized the Secretary to set aside up to 0.5% of these funds for evaluations, in addition to the separate evaluation funds that exist in many DOL agencies. In FY16, Congress authorized DOL to set aside up to .75% of operating agency budgets in evaluations.

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4. Performance Management/Continuous Improvement: Did the agency implement a performance management system with clear and prioritized outcome-focused goals and aligned program objectives and measures, and did it frequently collect, analyze, and use data and evidence to improve outcomes, return on investment, and other dimensions of performance in FY16?	ACF: • ACF's performance management framework focuses on outcomes and aims for coordinated and results-oriented management and operations across all ACF programs. ACF's Strategic Plan establishes five priorities, which align with the HHS Strategic Plan. ACF formally reviews progress toward its Strategic Plan goals every quarter. ACF's Strategic Plan establishes five priorities in support of the agency's mission of fostering health and well-being by providing federal leadership, partnership, and resources for the compassionate and effective delivery of human services. The five priorities are: 1) Promote economic, health, and social well-being for individuals, families, and communities; 2) Promote healthy development and school readiness for children, especially those in low-income families; 3) Promote safety and well-being of children, youth, and families; 4) Support underserved and underrepresented populations; and 5) Upgrade the capacity of ACF to make a difference for families and communities. • ACF aims to develop performance measures that are meaningful and can be used by program managers, leadership, outside stakeholders, and Congress to assess and communicate progress. Results for these metrics are reported annually in the ACF Congressional Budget Justification. ACF reports on a total of 156 performance measures (94 outcome measures and 62 output measures) in the FY17 Congressional Budget Justification. A selection of ACF performance measures is also highlighted as part of the FY 2017 HHS Annual Performance Plan and Report, which describes HHS' progress toward achieving the goals and objectives described in the FY 2014-2018 HHS Strategic Plan. This report includes the most recent results available at the end of FY15 for HHS, including ACF. • As part of the FY17 President's Budget request, HHS announced the FY16-17 HHS Priority Goals. ACF is the lead agency for the goal to "Improve the quality of early childhood programs for low-income children" in collaboration with the Substance Abuse and Mental Health Services Administration (SAMHSA) and the Health Resources and Services Administration (HRSA). On a quarterly basis, ACF provides updates on this Priority Goal on Performance.gov. ACF also participates in the GPRAMA-required Strategic Objective Annual Review process. HHS maintains an internal performance dashboard where ACF provides regular performance updates on the 156 performance measures included in the annual ACF Budget Request. CNCS: • CNCS's performance management framework is described in the Congressional Budget Justification for Fiscal Year 2016 (p.3) and Fiscal Year 2017 (p.6). • CNCS has a focused set of Agency-Wide Priority Measures derived from the 2011-2015 Strategic Plan. Every CNCS Program contributes to the Agency-Wide Priority Measures. There are also specific grantee/sponsor measures that roll up into the Agency-Wide Priority Measures, which can be found in the Agency-Wide Priority Measures chart. Grantees are required to select at least one national performance measure, and they are required to report performance measures data annually. CNCS encourages grantees to use these measure for continuous program improvement. CNCS uses the agency-wide priority measures to assess its own progress toward attaining the goals and objectives of its strategic plan. • Additionally, CNCS produces state profile reports, which provide a picture of agency resources in each state at a given point. These reports contain a number of priority indicators, including the number of participants engaged in national service activities as well as the amount of non-CNCS resources generated by the agency's programs. Along with its stakeholders, CNCS uses this information to understand the capacity of service available in different geographic regions and discuss related implications with key service partners. • CNCS's Chief Operating Officer (COO) is currently piloting a proof of concept performance framework that aligns with GPRA. The COO is finalizing their objectives, measures, and targets, and they will be conducting quarterly performance reviews starting in the fourth quarter of FY16. The goal is to establish an effective performance framework within the COO, work agency-wide to implement a similar process, and have an enhanced performance management framework in place as CNCS begins its new Strategic Planning process in 2017.

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4. <u>Performance Management/Continuous Improvement:</u> Did the agency implement a performance management system with clear and prioritized outcome-focused goals and aligned program objectives and measures, and did it frequently collect, analyze, and use data and evidence to improve outcomes, return on investment, and other dimensions of performance in FY16?	<u>MCC</u>: • MCC monitors progress towards compact results on a quarterly basis using performance indicators that are specified in the Compact M&E Plans. The M&E Plans specify indicators at all levels (process, output, and outcome) so that progress towards final results can be tracked. Every quarter each country partner submits an <u>Indicator Tracking Table (ITT)</u> that shows actual performance of each indicator relative to the baseline level that was established before the activity began and the performance targets that were established in the M&E Plan. Some of the key performance indicators and their accompanying <u>data by country</u> are publicly available. MCC reviews this data every quarter to assess whether results are being achieved and integrates this information into project management decisions. • MCC also supports the creation of multidisciplinary '<u>compact development teams</u>' to manage the development and implementation of each Compact program. Teams usually include the following members: Coordinator, economist, private sector development specialist, social inclusion and gender integration specialist, technical specialists (project specific), M&E specialist, environmental and social performance specialist, Legal, and financial management and procurement specialists. From the earliest stages, these teams develop project logics and M&E frameworks supported by data and evidence, and use them to inform the development of the projects within each Compact program. Teams meet frequently to gather evidence, discuss progress, make project design decisions, and solve problems; and they are encouraged to use the lessons from completed evaluations to inform their work going forward. • MCC hosts regular "colleges" in which MCC counterparts from partnering countries are invited to a weeklong set of meetings and workshops to discuss best practices, strengthen collaboration, and improve strategies for effectively implementing projects.. <u>USAID</u>: • USAID partners with the U.S. Department of State to jointly develop and implement clear strategic goals and objectives. USAID's Performance Improvement Officer (PIO) leads Agency efforts to use data for decision-making and improve performance and operational efficiency and effectiveness. The Assistant Administrator for the Management Bureau, <u>Angelique M. Crumbly</u>, also serves as the Performance Improvement Officer. The Office of Management and Budget's circular A-11 "<u>Preparation, Submission, and Execution of the Budget</u>," Part Six describes the role of the PIO. Specifically, the PIO coordinates tracking of Cross Agency Priority (CAP) and Agency Priority Goal (APG) progress; leverages stat reviews, such as PortfolioStat, HRStat, and CyberStat, to conduct deep-dives into evidence; and oversees business process reviews and other assessments to ensure that the Agency more efficiently and effectively achieves its mission and goals. • USAID's strategic plan, annual performance plan and report, and other performance reports are publicly available: • <u>Agency Joint Strategic Plan (JSP)</u> • <u>Agency Financial Report (AFR)</u> • <u>Annual Performance Plan and Report (APR)</u> • <u>Summary of Performance and Financial Information</u> • USAID reports on three Agency Priority Goals and nine Cross Agency Priority Goals on <u>www.performance.gov</u>. These goals help the Agency improve performance and cut costs, while holding the Agency accountable to the public. USAID assesses progress and challenges toward meeting the goals annually during data-driven reviews with Agency leadership. USAID also measures progress toward its <u>USAID Forward</u> reform agenda through eight public indicators, which help the Agency adapt business processes to improve performance. • USAID field missions develop <u>Country Development Cooperation Strategies</u> (CDCS) with clear goals and objectives and a <u>performance management plan</u> that identifies expected results, performance indicators to measure those results, plans for data collection and analysis, and periodic review of performance measures to use data and evidence to adapt programs for improved outcomes. • In addition to measuring program performance, USAID measures operations performance management to ensure that the Agency achieves its development objectives; aligns resources with priorities; and institutionalizes <u>USAID Forward</u> reforms.

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4. Performance Management/Continuous Improvement: Did the agency implement a performance management system with clear and prioritized outcome-focused goals and aligned program objectives and measures, and did it frequently collect, analyze, and use data and evidence to improve outcomes, return on investment, and other dimensions of performance in FY16?	**USED:** • ED develops a four-year strategic plan and holds quarterly data-driven progress reviews of the goals and objectives established in the plan, as required by the Government Performance and Results Act Modernization Act (GPRAMA) of 2010. ED's FY14-18 Strategic Plan includes a goal on the continuous improvement of the United States education system with objectives focused on enhancing the use of data, research, evaluation, and technology (see pp. 37-43). GPRMA also requires agencies to develop agency priority goals (APGs) and submit information on those goals to OMB on a quarterly basis. APGs reflect the top near-term performance priorities that agency leadership aims to accomplish within a two-year period. ED established an APG on enabling evidence-based decision-making (see Performance.gov for quarterly reporting on the APGs) and, in March 2016, decided to continue its work on this APG for FY16-17. Once established the metrics for the APGs are included in the strategic plan. For example, strategic objective 5.3 in the Department's current four-year strategic plan, which is part of the continuous improvement goal referenced above, includes the metrics for the evidence APG. Although many of the metrics in the strategic plan are annual, the Department uses the quarterly reviews to discuss data available and milestones achieved. **USHUD:** • HUD conducts regular data-driven performance reviews—"HUDStat" meetings—that focus on quarterly progress toward achieving each of HUD's priority goals. The HUD Secretary and senior leadership from throughout the agency, and sometimes from partner agencies, attend these meetings to address challenges, review metrics, improve internal and external collaboration, and increase performance. Strategic goals and two-year priority goals are publicly posted. HUD documents alignment between strategic goals and supporting objectives and metrics in the consolidated Annual Performance Plan-Annual Performance Report, and identifies the staff assigned lead responsibility for each objective. **USDOL:** • DOL's Performance Management Center (PMC) is responsible for the Department's extensive performance management system, which includes over 400 measures whose results are reviewed quarterly by the Deputy Secretary. PMC's activities are intended to improve DOL's program performance through data-driven analysis, sharing best practices, and implementing activities associated with the Government Performance and Results Modernization Act of 2010 (GPRA). Using a PerformanceStat-type reporting and dashboard system, PMC coordinates quarterly meetings between the Deputy Secretary and each agency head, to review performance results and analysis of the priority performance measures contributing to DOL's strategic goals, to make commitments related to performance improvement, and to follow up on the progress of previous performance improvement commitments. PMC also oversees the Strategic Planning process and analyzes performance data in collaboration with agencies to achieve continuous performance improvement. CEO actively participates in the quarterly performance reviews to incorporate findings from evaluations as appropriate. • One of the most important roles that DOL's CEO plays is to facilitate the interaction between program and evaluation analysts, and performance management and evaluation. Learning agendas updated annually by DOL agencies in collaboration with DOL's CEO include program performance themes and priorities for analysis needed to refine performance measures and identify strategies for improving performance. The quarterly GPRA meetings with the Deputy Secretary routinely include specific discussions about improving performance and findings from recent evaluations that suggest opportunities for improvement. • To promote the use of evidence based strategies DOL's Employment and Training Administration (ETA) also continues to manage the Workforce Systems Strategies website, which identifies a range of potential strategies informed by research evidence and peer exchanges to support grantees in providing effective services to customers.

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5. Data: Did the agency collect, analyze, share, and use high-quality administrative and survey data - consistent with strong privacy protections - to improve (or help other entities improve) federal, state, and local programs in FY16?	**ACF:**
	• ACF has made numerous administrative and survey datasets publicly available for secondary use, such as data from the National Survey of Early Care and Education, Child Care and Development Fund, National Survey of Child and Adolescent Well-Being, and Adoption and Foster Care Analysis and Reporting System, among many other examples.
	• ACF's Interoperability Initiative supports data sharing through policies and guidelines to accelerate adoption; standards and tools that are reusable across the country; field-based pilots; and addressing common privacy and security requirements to mitigate risks.
	• Several ACF divisions have also been instrumental in supporting cross-governmental efforts, such as the National Information Exchange Model (NIEM) that will enable human services agencies to collaborate with health, education, justice, and many other constituencies that play a role in the well-being of children and families.
	• ACF's National Directory of New Hires has entered into data sharing agreements with numerous agencies. For example, DOL's CEO and ETA have interagency agreements with HHS-ACF for sharing and matching earnings data on 9 different formal net impact evaluations. The NDNH Guide for Data Submission describes an agreement with the Social Security Administration to use its network for data transmission. Also, ACF Administers the Public Assistance Reporting Information System, a platform for exchange of data on benefits receipt across ACF, Department of Defense, and Veterans Affairs programs. This platform entails data sharing agreements between these three federal agencies and between ACF and state agencies.
	• The Administration's FY17 budget request includes $261 million over five years for human services data interoperability, including grants for Statewide Human Services Data Systems and a Systems Innovation Center.
	
	CNCS:
	• As the nation's largest grant maker for service and volunteering, CNCS collects data about service program members, volunteers, and the organizations in which members and volunteers are placed. Member/volunteer demographic, service experience, and outcome data are collected in a variety of ways – both through administrative processes and through surveys:
	  • In FY16 data collected from a revised member exit survey allowed CNCS to generate more accurate reports on key experiences and anticipated college, career, and civic engagement outcomes, which were shared internally. Survey results are being shared with program and agency leadership in FY16 for program improvement purposes. In FY16 R&E will also begin generating state-level reports for its State Commissions. The longer-term goal is to finalize response rate standards across the AmeriCorps programs so that data sets can be made available for public use in FY17.
	  • A report summarizing cross-sectional survey findings on Senior Corps Foster Grandparents and Senior Companion Program volunteers will be released in FY16. The paper compares health, mobility disability, and life satisfaction between participants in both programs; and examines how their health status differs from similar adult volunteers and non-volunteers in the general population (a matched sample of volunteers and non-volunteers from the Health and Retirement Study (HRS). A longitudinal survey of volunteers in these 2 Senior Corps programs was implemented in FY15, and preliminary findings are expected in FY16.
	  • For the first time, results from the redesigned AmeriCorps member exit survey were merged with administrative data sets on member demographics, program characteristics, and service locations to produce a new unified data set that currently has almost 70,000 observations. Analysis began in FY16, and preliminary findings are expected by the end of FY16.
	  • Findings from an alumni outcome survey pilot were published in FY16.
	• In FY16, CNCS's R&E Office is executing a new administrative data match between a sample of AmeriCorps alumni records and postsecondary outcome data from the National Student Clearinghouse. R&E also plans to execute a second administrative data match between alumni records and the Census' LEHD dataset to obtain employment and employment sector outcomes for AmeriCorps alumni. Although R&E currently relies on surveys, CNCS would prefer to reduce its reliance on this method so that key college and career outcomes can be obtained from more objective sources and for less cost.
	• CNCS's Office of Research and Evaluation (R&E) makes publicly available (1) state profiles that depict national service resources (grant funds, members, volunteers, grantees) and program performance metrics across the country and (2) volunteering statistics at the local, state, and national levels collected for CNCS by the U.S. Census Bureau through an interagency agreement. ((https://www.volunteeringinamerica.gov/))

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5. Data: Did the agency collect, analyze, share, and use high-quality administrative and survey data - consistent with strong privacy protections - to improve (or help other entities improve) federal, state, and local programs in FY16?	**MCC:**
	• MCC's M&E Division oversees the upload of anonymized evaluation data to MCC's public Evaluation Catalog. There, partner countries, as well as the general public, can access spreadsheets that show economic rates of return calculations, performance indicator tracking tables, results of independent evaluations for MCC-funded projects, and public use versions of the data used in those evaluations. All evaluation data is meticulously reviewed by MCC's internal Disclosure Review Board prior to posting to ensure that respondents' privacy is protected.
	• As part of its Data2x commitment, MCC and other donors are increasing the amount of gender data released and helping to improve international data transparency standards.
	• MCC is also a founding partner of the Governance Data Alliance, a collaborative effort by governance data producers, consumers, and funders to improve the quality, availability, breadth, and use of governance data.
	• MCC also has a partnership with the President's Emergency Plan for AIDS Relief (PEPFAR) which is helping to increase the availability and quality of development-related data in selected countries. MCC partnered with PEPFAR to create local data hubs that would engage stakeholders around the availability, accessibility and analysis of data. The data hubs have a local board drawn from partner country governments, the private sector and civil society. The hubs will comprise both a physical space for data analysts and other staff and virtual engagement among such stakeholders as donors, foundations, researchers, and NGOs.
	• MCC also hosted a publicly available webinar, "Monitoring and Evaluation in the Water Sector," in which a presentation was given on MCC's rigorous evidence-based approach to monitoring and evaluation, followed by a closer look at lessons learned in the water sector and a discussion of ways in which monitoring and evaluation can contribute to aid effectiveness.
	
	USAID:
	• USAID has an open data policy which:
	   • Establishes the Development Data Library (DDL) as the Agency's repository of USAID-funded, machine readable data created or collected by the Agency and its implementing partners;
	   • Requires USAID staff and implementing partners (via associated changes to procurement instruments) to submit datasets generated with USAID funding to the DDL in machine-readable, non-proprietary formats;
	   • Implements a data tagging protocol in keeping with the President's Executive Order and Office of Management and Budget policy on Open Data;
	   • Defines a data clearance process to ensure that USAID makes as much data publicly available as possible, while still affording all protections for individual privacy, operational and national security, and other considerations allowable by law; and
	   • Ensures data is updated quarterly, at minimum.
	• In November 2011, the United States became a signatory to the International Aid Transparency Initiative (IATI). IATI developed a standard for publishing foreign assistance spending data that allows for comparison across publishers. Publish What You Fund (PWYF), a United Kingdom-based nongovernmental organization advocating for greater aid transparency, assesses 60+ bilateral and multilateral donors' overall commitment to aid transparency and the information they publish in an annual Aid Transparency Index (ATI). In 2014, USAID ranked 31st out of 68 donors and was at the bottom of the "Fair" category. In July 2015, USAID produced a cost management plan (CMP) in order to improve its reporting to IATI and, thereby, improve the Agency's score in the ATI. The plan elaborates on the necessary requirements (for example, political movement/discussions, technical work, system upgrades) and estimated timeline for implementation to advance in these areas. Recognizing the level of effort involved with the improvements varies greatly, the CMP outlines a four-phased approach. USAID is already seeing results. USAID's score in PWYF's 2015 Aid Transparency Review jumped by more than 20 points, propelling USAID to the "Good" category.
	• USAID continues to expand the data it publishes on ForeignAssistance.gov (The Foreign Assistance Dashboard) and the International Aid Transparency Initiative. USAID recently launched the Foreign Aid Explorer which shares 40 years of data through an easy to navigate website. USAID publishes its core datasets, as well as program specific data, in application program interface (API) formats. In 2014, USAID also began publicly sharing data files and its open data plan through its new Open Government website as part of the U.S. Government's open data initiative.

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5. Data: Did the agency collect, analyze, share, and use high-quality administrative and survey data - consistent with strong privacy protections - to improve (or help other entities improve) federal, state, and local programs in FY16?	USAID (cont.): • The USAID GeoCenter uses data and analytics to improve the effectiveness of USAID's development programs by geographically assessing where resources will maximize impact. The GeoCenter team works directly with field missions and Washington-based bureaus to integrate geographic analysis into the strategic planning, design, monitoring, and evaluation of USAID's development programs. To date, the GeoCenter has leveraged $32 million worth of high-resolution satellite imagery for development projects, at no cost to the Agency. • USAID's Economic Analysis and Data Services (EADS) unit has a public web site to share data and also provides data analysis tools. The unit also works to provide analysis upon request. In particular, the International Data and Economic Analysis part of EADS provides USAID staff, partners, and the public with analytical products and a platform for querying data. • USAID uses data to inform policy formulation, strategic planning, project design, project management and adaptation, program monitoring and evaluation, and learning what works. The Program Cycle is USAID's particular framing and terminology to describe this set of processes and the use of data and evidence to inform decisions is a key part of the process. • USAID's Monitoring Country Progress (MCP) system is an empirical analytical system which tracks and analyzes country progress along five dimensions: (1) economic reforms; (2) governing justly and democratically; (3) macro-economic performance; (4) investing in people; and (5) peace and security. It is used to facilitate country strategic planning including country graduation from USG foreign assistance programs. • USAID has also begun publishing funding data alongside program results on the Dollars to Results page of the USAID website. Dollars to Results provides information on USAID's impact around the world by linking annual spending (inputs) to results (outputs and outcomes) in some of the more than 100 developing countries where we work. There are plans to expand Dollars to Results in the future. Due to the nature of foreign assistance programs, it is difficult to directly link Fiscal Year disbursements to Fiscal Year results. There is often a time lag between when a dollar is disbursed and when a result is achieved from that investment. For example, if USAID builds a school, most of the spending takes place in the first several years of the project as construction begins. However, results may not be achieved until years later when the school opens and classes begin. Results shown on the website give a snapshot of the type of results achieved by USAID. • To help inform the U.S. Government's aid transparency agenda, USAID conducted three aid transparency country pilot studies in Zambia (May 2014), Ghana (June 2014), and Bangladesh (September 2014). The country pilots assessed the demand for and relevance of information that the U.S. Government is making available, as well as the capacity of different groups to use it. The final report summarizes findings from the three pilots and provides recommendations to help improve the transmission of foreign assistance data to ensure that the transparency efforts of the U.S. Government create development impact.

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5. Data: Did the agency collect, analyze, share, and use high-quality administrative and survey data - consistent with strong privacy protections - to improve (or help other entities improve) federal, state, and local programs in FY16?	USED: • ED has several resources to support the high-quality collection, analysis, and use of high-quality data in ways that protect privacy. IES' National Center for Education Statistics (NCES) serves as the primary federal entity for collecting and analyzing data related to education. Almost all of ED's K-12 statistical and programmatic data collections are now administered by NCES via EDFacts. NCES also collects data through national and international surveys and assessments. Administrative institutional data and statistical sample survey data for postsecondary education is collected through NCES in collaboration with the Federal Student Aid Office (FSA). NCES data are made publicly available online and can be located in the ED Data Inventory. Some data are available through public access while others only through restricted data licenses. ED's Office for Civil Rights conducts the Civil Rights Data Collection (CRDC) on key education and civil rights issues in our nation's public schools. Additionally, the Data Strategy Team helps to coordinate data activities across the Department and the Disclosure Review Board, the Family Policy Compliance Office (FPCO), the EDFacts Governing Board, and the Privacy Technical Assistance Center all help to ensure the quality and privacy of education data. • ED has made concerted efforts to improve the availability and use of its data in FY16. With the release of the new College Scorecard, the Department now provides newly combined data in a tool that helps students choose a school that is well-suited to meet their needs, priced affordably, and consistent with their educational and career goals. Additionally, the College Scorecard promotes the use of open data by providing the underlying data in formats that researchers and developers can use. This effort is a model for future releases of education data, and led to ED's new effort, InformED, to improve Department capacity to release data in innovative and effective ways to improve public use of data. InformED was part of the FY17 budget request (see p. 78). • ED has several data sharing agreements with other agencies. For example, ED and the U.S. Department of Treasury match Federal Student Aid data with administrative Internal Review Service tax records to calculate earnings information by postsecondary institution for the College Scorecard consumer tool. This agreement allows ED to annually update and publish data on mean earnings, median earnings, and fraction not working among all students who received Title IV aid (i.e., federal grants and loans). ED and the U.S. Department of Labor are engaged in a joint federal/state workgroup that is developing help for data sharing at the state level through the new State Wage Interchange System (SWIS) for the Workforce Innovation and Opportunity Act (WIOA). For calculating the Gainful Employment (GE) debt-to-earnings metric, the Department of Education obtains from the Social Security Administration (SSA) annual earnings of students who completed a GE program. ED submits the Social Security numbers of students who received Title IV aid (i.e., federal grants and loans) to SSA in order to calculate the highest of mean and median earnings for each program. • Additionally, ED administers the Statewide Longitudinal Data System (SLDS) program ($34.5 million in FY16), which provides grants to states to develop their education-related data infrastructure and use these data for education improvement..

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5. Data: Did the agency collect, analyze, share, and use high-quality administrative and survey data - consistent with strong privacy protections - to improve (or help other entities improve) federal, state, and local programs in FY16?	USHUD: • The HUD USER web portal continues to provide researchers, practitioners, and the public with PD&R datasets including the American Housing Survey, HUD median family income limits, and Picture of Subsidized Households tabulations at multiple geographic levels, as well as microdata from research initiatives on topics such as housing discrimination, the HUD-insured multifamily housing stock, and the public housing population. To help users identify which data are useful to them, reference guides identify datasets and characterize their relevance and usefulness for research in designated categories. • HUD's Office of Policy Development and Research (PD&R) has authority to enter into cooperative agreements with research organizations, including both funded Research Partnerships and unfunded Data License Agreements, to support innovative research projects that leverage HUD's data assets and inform HUD's policies and programs. A dedicated subject-matter expert is available to answer questions for those seeking a data license. • HUD's PD&R and the National Center for Health Statistics at the Centers for Disease Control have successfully linked HUD administrative data for assisted renters with respondents to two national health surveys and made the linked data available to researchers to begin building a picture of tenant health issues. • HUD is involved in a wide array of data-sharing agreements, including geocoding services provided by HUD's Geocoding Service Center; a recent agreement with the U.S. Department of Health and Human Services to pilot an administrative data linkage with Medicare and Medicaid utilization records; national compilation of local point-in-time counts of homeless individuals and administrative data from homeless service providers using Homeless Management Information Systems; collection of tenant data for Low-Income Housing Tax Credit properties from state housing finance agencies; an ongoing agreement with Actionable Intelligence for Social Policy to develop integrated data systems for policy analysis and program reform, including local education data; and a multiagency federal agreement under development about protocols for information security in data-sharing.

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5. Data: Did the agency collect, analyze, share, and use high-quality administrative and survey data - consistent with strong privacy protections - to improve (or help other entities improve) federal, state, and local programs in FY16?	USDOL: • DOL's Bureau of Labor Statistics (BLS) (approximately $600 million in FY16) serves as the principal Federal agency responsible for measuring labor market activity, working conditions, and price changes in the economy. BLS has 111 Cooperative Agreements with 50 States and 4 Territories for labor market and economic data sharing, 505 "letters of agreement" on data usage with academics to conduct statistical research, and data sharing agreements with the Bureau of Economic Analysis and the Census Bureau. • DOL's Employment and Training Administration (ETA) has agreements with 52 States and Territories for data sharing and exchange of wage data for performance accountability purposes. • DOL's CEO, Employment Training Administration (ETA), and the Veterans Employment and Training Service (VETS) have worked with the U.S. Department of Health and Human Services (HHS) to develop a secure mechanism for obtaining and analyzing earnings data from the Directory of New Hires. In this past year DOL has entered into interagency data sharing agreements with HHS and obtained data to support 9 job training and employment program evaluations (Reemployment Assistance Demonstration Evaluation with unemployment insurance claimants, Young Parents Demonstration Evaluation, Enhanced Transitional Jobs Program Evaluation, Youthbuild Evaluation, Workforce Investment Act Evaluation, Green Jobs/Health Care Demonstration Evaluation, Re-entry for Ex-Offenders Evaluation, Transition Assistance Program for separating activity duty military persons, and the Job Training Scorecard Feasibility Study). • DOL's worker protection agencies have open-data provisions on enforcement activity for firms from DOL's five labor enforcement agencies online and accessible through the Enforcement Data Base (Mine Safety and Health Administration, Wage and Hour Division, Occupational Safety and Health Administration, and the Employee Benefits Security Administration). • The privacy provisions for BLS and DOL's Employment and Training Administration (ETA) are publicly available online. • In FY16, DOL expanded efforts to improve the quality of and access to data for evaluation and performance analysis through the Data Analytics Unit in DOL's CEO office, and through new pilots beginning in BLS to access and exchange state labor market and earnings data for statistical and evaluation purposes. The Data Analytics unit has also developed the Data Exchange and Analysis Platform (DEAP) with high processing capacity and privacy provisions to share, link, and analyze program and survey data across DOL programs and agencies and with other agencies. Internal use of DEAP is available now and public access will be available in the future. • The Workforce Innovation Opportunity Act (WIOA) calls for aligned indicators of performance for WIOA authorized programs. DOL's Employment and Training Administration has worked within DOL and with the U.S. Department of Education to pursue the deepest WIOA alignment possible, including indicators definitions, data elements, and specifications to improve the quality and analytic value of the data. DOL chose to include several additional DOL programs in this process, which will result in unprecedented alignment of data and definitions for 13 federal programs (11 DOL and 2 Education). DOL and ED have issued the proposed rule for public comment and will finalize it in late spring 2016, and has also issued the related Information Collection Requests for public comment, and expect to finalize those Information Collection requires prior to that date. • ETA continues funding and technical assistance to states under the Workforce Data Quality Initiative to link earnings and workforce data and education data longitudinally. ETA and DOL's Veteran's Employment and Training Service have also modified state workforce program reporting system requirements to include data items for a larger set of grant programs, which will improve access to administrative data for evaluation and performance management purposes. An example of the expanded data reporting requirements is the Homeless Veterans Reintegration Program FY16 grants.

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6. Common Evidence Standards/What Works Designations: Did the agency use a common evidence framework, guidelines, or standards to inform its research and funding decisions and did it disseminate and promote the use of evidence-based interventions through a user-friendly tool in FY16?	**ACF:** • ACF has established a common evidence framework adapted for the human services context from the framework for education research developed by the U.S. Department of Education and the National Science Foundation. The ACF framework, which includes the six types of studies delineated in the ED/NSF framework, aims to (1) inform ACF's investments in research and evaluation, and (2) clarify for potential grantees and others the expectations for different types of studies. • ACF maintains an online clearinghouse of evidence reviews of human services interventions. These reviews rate the quality of evaluation studies using objective standards vetted by technical experts and applied by trained, independent reviewers, and similar to those used by other agencies such as the U.S. Department of Education's What Works Clearinghouse and the U.S. Department of Labor's CLEAR. The clearinghouse includes results of the reviews in a searchable format as well as comprehensive details about the review standards and process. Reviews to date have covered teen pregnancy prevention; home visiting; relationship education and responsible fatherhood; and employment and training; and include both ACF-sponsored and other studies. **CNCS:** • CNCS's Office of Research and Evaluation (R&E) Office is actively involved with 3 other federal agencies in the interagency Common Evidence Framework working group in order to ensure consistency in definitions and use of evidence standards in grant-making. CNCS uses the Cross-agency Federal Evidence Framework for evaluation planning and dissemination. • CNCS also adapted the evidence framework used by its Social Innovation Fund and the Investing in Innovation Fund at ED and included it as part of the AmeriCorps State and National program's FY16 grant competition. The evidence framework used in the FY16 AmeriCorps competition was revised from FY15 to make it more consistent with what is used in other federal agencies. • In March 2015, CNCS released Phase I of the CNCS Evidence Exchange, a virtual repository of reports intended to help CNCS grantees and other interested stakeholders find information about evidence- and research- based national service and social innovation programs. Phase 1 includes a database of single study reports with some additional descriptive information about the study, as well as a systematic review of the national service evidence base. Phase 2 in FY16 added studies as grantees completed their independent evaluations and submitted reports to CNCS. **MCC:** • MCC uses common, rigorous, evidence-based selection criteria to ensure objectivity in country selection for grant awards. To be eligible for selection, countries must first pass the MCC scorecard – a collection of 20 independent, third-party developed indicators that objectively measure a country's policy performance in the areas of economic freedom, investing in its people, and ruling justly. The criteria for passing the scorecard are applied universally to all candidate countries. MCC's Board of Directors then considers 3 key factors for selecting countries: 1) a country's performance on the scorecard; 2) the opportunity to reduce poverty and generate economic growth; and 3) availability of funds. An in-depth description of the country selection procedure can be found in the annual Selection Criteria and Methodology report. • MCC's model is based on a set of core principles essential for development to take place and for development assistance to be effective – good governance, country ownership, focus on results, and transparency. In pursuing these, MCC has created a Principles into Practice series which describes how to make these principles operational. Finally, all of MCC's evaluations are then published on the MCC Evaluation Catalog. Associated data, upon which evaluations are based, are published when confidentiality concerns are adequately addressed. • MCC is also developing an enhanced consolidated results framework that will assist it in telling the full picture of the impact of its programs and enrich programmatic learning. Currently in draft form, the framework will help MCC consolidate impacts across projects, compacts and sectors to assess an overall impact at an organizational level..

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6. Common Evidence Standards/What Works Designations: Did the agency use a common evidence framework, guidelines, or standards to inform its research and funding decisions and did it disseminate and promote the use of evidence-based interventions through a user-friendly tool in FY16?	**USAID**: • USAID has a scientific research policy that sets out quality standards for research. USAID's Program Cycle guidance includes specific evidence standards for strategic planning, project design, monitoring, and evaluation. For example USAID has guidance that requires evidence and data to assess the development context, challenges, and opportunities in all of USAID's country strategies. Similarly, all USAID projects must include a detailed analytical phase in the Project Appraisal Document. • USAID does most of its Agency-wide engagement around evidence and frameworks for "what works" through its board membership and funding (along with other donors) of the International Initiative for Impact Evaluations (3ie) which funds impact evaluations and systematic reviews that generate evidence on what works in development programs and why. Rather than creating a separate "what works" clearinghouse, USAID has chosen to work with 3ie and other development partners to support 3ie's database of impact evaluations relevant to development topics (includes over 2,500 entries to date), knowledge gap maps and systematic reviews that pull the most rigorous evidence and data from across donors. 3ie also houses a collection of policy briefs that examine findings from its database of impact evaluations on overarching policy questions to help policymakers and development practitioners improve development impact through better evidence. • USAID technical bureaus provide guidance based on evidence of "what works" by sector that applies to all relevant Agency programs. USAID's Bureau for Democracy, Conflict and Humanitarian Assistance (DCHA), for example, includes the Center of Excellence on Democracy, Rights, and Governance, which publishes evidence-based standards for what works in this field. The DRG Center convenes leading scholars from a range of fields to work with USAID to study, analyze, and assess the effectiveness of its initiatives and programs in DRG, using this data to shape programming. In addition, USAID established the Evaluating Democracy and Governance Effectiveness (EDGE) Initiative, with the objective to supply and apply sophisticated tools to measure the impact of democracy, human rights, and governance work, and infuse evidence-based programmatic decision-making throughout the DRG portfolio.In another example, USAID's Global Health Bureau has a strategic framework that presents details in Annex 1 on specific evidence-based strategies, targets, and approaches for achieving goals within each technical area under the health priorities. • Several USAID Bureaus also synthesize all the evaluations relevant to a specific sector to summarize key findings and identify gaps in knowledge that then inform sector learning agendas. For example, in March, the Bureau for Food Security (BFS) published a synthesis report summarizing findings from 196 evaluations of Feed the Future projects that focused on the six themes outlined in the BFS Learning Agenda. Across the themes, the synthesis illuminated trends and patterns summarized in the points found below the graphic. These trends can be shared with relevant staff and stakeholders engaged in designing new projects, or updating sector strategies and policies. The synthesis also identified gaps where more evaluation research is needed, helping to inform the design of future evaluations that can contribute to the body of knowledge on food security to improve the design and management of interventions in the agriculture and nutrition sectors by specifically addressing Learning Agenda questions. **USED**: • ED's evidence standards for its grant programs, as outlined in the Education Department General Administrative Regulations (EDGAR), build on ED's What Works Clearinghouse™ (WWC) evidence standards. ED often includes these evidence standards in its discretionary grant competitions to direct funds to applicants proposing to implement projects that have evidence of effectiveness and/or to build new evidence through evaluation (see Question #8 below for more detail). Additionally, IES and the National Science Foundation issued a joint report that describes six types of research studies that can generate evidence about how to increase student learning in 2013. These principles are based, in part, on the research goal structure and expectations of IES's National Center for Education Research (NCER) and National Center for Special Education Research (NCSER). NCER and NCSER communicate these expectations through their Requests for Applications and webinars that are archived on the IES website and available to all applicants. • ED's What Works Clearinghouse™ (WWC) identifies studies that provide credible and reliable evidence of the effectiveness of a given practice, program, or policy (referred to as "interventions"), and disseminates summary information and reports on the WWC website. The WWC has reviewed more than 11,325 studies that are available in a searchable database.

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6. Common Evidence Standards/What Works Designations: Did the agency use a common evidence framework, guidelines, or standards to inform its research and funding decisions and did it disseminate and promote the use of evidence-based interventions through a user-friendly tool in FY16?	USHUD: • HUD's Policy Development and Research (PD&R) office provides evidence of "what works" primarily through HUD USER, a portal and web store for program evaluations, case studies, and policy analysis and research; the Regulatory Barriers Clearinghouse; and through initiatives such as Innovation of the Day, Sustainable Construction Methods in Indian Country, and the Consumer's Guide to Energy-Efficient and Healthy Homes. This content is designed to provide current policy information, elevate effective practices, and synthesize data and other evidence in accessible formats. Through these resources, researchers and practitioners can see the full breadth of work on a given topic (e.g., rigorous established evidence, case studies of what's worked in the field, and new innovations currently being explored) to inform their work. USDOL: • DOL uses the Cross-agency Federal Evidence Framework for evaluation planning and dissemination. • DOL's Clearinghouse for Labor Evaluation and Research (CLEAR) is an internet-based evidence clearinghouse of evaluation reports that reviews designs, methodologies, and findings according to specific standards developed by technical work groups. Each study is scored and given a "causal evidence rating" according to the scoring rubric in the standards. CLEAR is a user-friendly, searchable website, that includes academic quality reviews for each study included in the system, appropriate for peer academic researchers, potential evaluation contractors submitting technical proposals, program practitioners seeking information on "what works", policy makers, and the general public. • DOL uses the CLEAR evidence guidelines and standards when discretionary program grants awarded using evidence-informed or evidence-based criteria. The published guidelines and standards are thus used in grants for evidence-based programs demonstrations and in reviewing evaluations in the structured evidence reviews conducted in CLEAR. Requests for proposals also indicate the CLEAR standards apply to all CEO evaluations. Also, DOL has a "Department Evaluation Policy Statement" that formalizes the principles that govern all program evaluations in the Department, including methodological rigor, independence, transparency, ethics, and relevance. In addition, CEO publicly communicates the standards and methods expected in all DOL evaluations, and the standards are incorporated into formal procurement statements of work, with scoring for awards based on the standards. • Additionally, DOL collaborates with other agencies (HHS, ED-IES, NSF, CNCS) on refining cross-agency evidence guidelines and developing technological procedures to link and share reviews across clearinghouses. The Interagency Evidence Framework conveys the categories of evaluations, the quality review of evaluation methodologies and results, and the use of evaluation finings. The framework is accepted Department-wide.

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7. <u>Innovation</u>: Did the agency have staff, policies, and processes in place that encouraged innovation to improve the impact of its programs in FY16?	<u>ACF</u>: • ACF's <u>Behavioral Innovations to Advance Self-Sufficiency</u> (BIAS) project is the first major effort to apply a behavioral economics lens to programs that serve poor families in the U.S. Since its inception in 2010, the project has conducted 15 rapid-cycle randomized tests of behavioral innovations in seven states with nearly 100,000 sample members. • ACF's <u>Behavioral Interventions for Child Support Services</u> (BICS) demonstration project is applying behavioral insights to child support contexts, developing promising behavioral interventions, and building a culture of regular, rapid-cycle evaluation and critical inquiry within the child support community. • The Administration's FY17 <u>budget request</u> (p. 347) proposes to repurpose the Temporary Assistance Contingency Fund for a targeted set of approaches to reducing poverty and promoting family economic security. These include demonstration projects to improve parental employment outcomes concurrently with child and family wellbeing outcomes; subsidized employment programs; and program improvement initiatives, such as monitoring and oversight, technical assistance, and research and evaluation. The proposed demonstration programs would set aside funds for evaluation. • ACF has actively participated in the <u>HHS IDEA Lab</u>, an entity within HHS launched in 2013, to invest in internal innovation, leverage external innovation, and build collaborative communities to tackle cross-cutting issues of strategic importance. <u>Current projects</u> include the ACF Administration for Native Americans' Application Toolkit and DataQuest: Making ACF Native Data Visible and Useful, the ACF Office of Family Assistance's Understanding Temporary Assistance for Needy Families Through Data Vizualization, and the ACF Office of Head Start's Partnership Alignment Information Response System. • ACF is participating in the <u>Performance Partnership Pilots for Disconnected Youth</u> initiative by providing flexibility for grantees to join partnerships at the state level. In addition ACF staff have served as technical and evaluation reviewers for selecting the Round 1 pilot sites, participated in the flexibility review process, and contributed evaluation expertise to planning for local and national evaluations of pilot sites. <u>CNCS</u>: • CNCS remains a partner in the <u>Performance Partnership Pilot</u> (P3) program and has contributed to the national evaluation of this initiative. R&E estimates that one pilot site is leveraging CNCS funding through P3. • CNCS awarded 10 grants that launched in FY16 as part of a new grant making initiative called <u>Operation AmeriCorps</u>. This initiative was designed to encourage tribal and local leaders to identify a high-priority local challenge that AmeriCorps State and National, AmeriCorps NCCC, and/or AmeriCorps VISTA members can holistically address in a relatively short period of time (no more than 2 years). This grant making initiative is innovative for CNCS as it is the first grant program that requires the blending of resources from different AmeriCorps programs – which usually operate separately – to create a new transformative service solution. In addition to requiring a blended service model, the grant program streamlined the application process and facilitated an internal examination of ways the agency's business processes can be improved. CNCS's R&E Office is conducting a two-year process evaluation of Operation AmeriCorps, which is designed to provide more formal findings on the extent to which the goals of the initiative were achieved.

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7. Innovation: Did the agency have staff, policies, and processes in place that encouraged innovation to improve the impact of its programs in FY16?	MCC: • In September 2014, MCC's Monitoring and Evaluation division launched the agency's first Open Data Challenge, a call-to-action to Masters and PhD students working in economics, public policy, international development, or other related fields who were interested in exploring how to use publicly available MCC-financed primary data for policy-relevant analysis. The Challenge was intended to facilitate broader use of MCC's US-taxpayer funded data. Due to the success of the first Open Data Challenge, a second Open Data Challenge was launched in February 2016 in order to encourage innovative ideas and maximize the use of data that MCC finances for its independent evaluations. • MCC is launching a gender data competition in Côte d'Ivoire in partnership with the Data2x initiative of the UN Foundation and the World Wide Web Foundation. The competition and larger partnership will spur interest in, creative use of, and new learning from data related to women and girls. • In 2014, MCC launched an internal "Solutions Lab" that was designed to encourage innovation by engaging staff to come up with creative solutions to some of the biggest challenges MCC faces. • MCC is conducting an "Innovation Grant Program" in Zambia in order to encourage local innovation in pro-poor service delivery in the water sector through grants to community-based organizations, civil society and/or private sector entities. • MCC regularly engages in implementing pilot projects as part of its overall Compact programs. A few examples include: 1) in Morocco, an innovative pay for results (PFR) mechanism to replicate or expand proven programs that provide integrated support including short-term (one to six months) job readiness skills training, technical training, job matching, follow-up to ensure longevity, and other services and 2) a "call-for-ideas" in Benin in 2015 that extended an invitation to interested companies and organizations from around the world to submit information regarding potential projects that would expand access to renewable off-grid electrical power in Benin, and 3) a regulatory strengthening project in Sierra Leone that includes funding for a results-based financing system designed to strengthen the regulator's role, incentivize performance by the utilities, and enhance accountability. USAID: • USAID established the U.S. Global Development Lab (the Lab) in 2014 to increase the application of technology, innovation, and partnerships to extend the Agency's development impact in helping to end extreme poverty. The Lab does this by working closely with colleagues across the Agency and by bringing together a diverse set of partners to discover, test, and scale breakthrough innovations to solve development challenges faster and cheaper and more sustainably. The Lab is the home for the Monitoring, Evaluation, Research and Learning Innovations program (MERLIN) to source, co-design, implement and test solutions that innovate on traditional approaches to monitoring, evaluation, research and learning. • USAID has also launched six grand challenges to engage the public in the search for solutions to development problems. • The Development Innovation Ventures (DIV) awards grant financing to winners in three distinct stages of financing. Funding ranges from under $100,000 to $15 million, and is based on where a project is in its development and to what extent it has previously gathered evidence of success. The DIV model is designed to find breakthrough solutions, minimize risk and maximize impact through stage financing, rigorously test impacts and cost effectiveness, and scale proven solutions through the public or private sectors.

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7. Innovation: Did the agency have staff, policies, and processes in place that encouraged innovation to improve the impact of its programs in FY16?	USED: • ED's Investing in Innovation (i3) is the Department's signature innovation program for K–12 public education. While the larger i3 grants are focused on validating and scaling evidence-based practices, the smaller i3 grants are designed to encourage innovative approaches to persistent challenges. These "Development" grants are the most prevalent type of i3 grant, comprising 105 out of the 157 i3 grants to date, and 7 of the 13 new i3 grants made in FY15. In order to spur similar types of innovation in higher education, the Department made its second cohort of grantees under its First in the World (FITW) program in FY15. The Department made 18 FITW grants in FY15, the vast majority of which (16 of 18) were in the "Development" category. • ED is participating in the Performance Partnership Pilots for Disconnected Youth initiative. These pilots give state, local, and tribal governments an opportunity to test innovative new strategies to improve such outcomes for low-income disconnected youth ages 14 to 24, including youth who are in foster care, homeless, young parents, involved in the justice system, unemployed, or who have dropped out or are at risk of dropping out of school. • The White House Social and Behavioral Sciences Team has conducted several behavioral science studies related to ED's work, including looking at the impact of text message reminders for students about key tasks related to college matriculation, such as completing financial aid paperwork, and about notices to student borrowers about income-driven repayment plans. • ED is currently implementing the Experimental Sites Initiative to test the effectiveness of statutory and regulatory flexibility for participating institutions disbursing Title IV student aid. • ED has hired a full-time Pay-for-Success fellow in FY16. ED has entered into an agreement with the University of Utah's Policy Innovation Lab to support a full-time Pay for Success Fellow at ED. With additional expertise provided by this fellow, ED is deepening its capacity and developing ways to use Pay for Success to expand effective educational programs and promote innovation. • The IES Research Grants Program supports the development and iterative testing of new, innovative approaches to improving education outcomes. IES makes research grants with a goal structure. "Goal 2: Development and Innovation" supports the development of new education curricula; instructional approaches; professional development; technology; and practices, programs, and policies that are implemented at the student-, classroom-, school-, district-, state-, or federal-level to improve student education outcomes.

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7. Innovation: Did the agency have staff, policies, and processes in place that encouraged innovation to improve the impact of its programs in FY16?	USHUD: • HUD's Policy Development and Research (PD&R) office is conducting a number of evaluated, random-assignment program demonstrations to test new program models, which can be found in PD&R's biennial report: the Family Options study of homelessness interventions, Family Self-Sufficiency Demonstration, Pre-Purchase Homeownership Counseling Demonstration, Support and Services at Home (SASH) Demonstration for elderly households, Supportive Services Demonstration for health services in elderly housing, Rent Reform Demonstration, and the Small Area Fair Market Rent Demonstration. The latter demonstrations are in early or middle stages; interim results and long-term follow-up results generally will be reported through HUD USER during the next 2-4 years. • PD&R also is collaborating with the White House Social and Behavioral Sciences Team and U.S. Department of Education to link tenant data with records of students and individuals submitting Free Applications for Federal Student Aid, helping increase access of HUD tenants to higher education through low-cost, behaviorally informed experiments about effective outreach methods. While detailed information about these experiments is not available at present, some can be found in HUD's 2015 Annual Report (see p. 62) and will be included in SBST's annual report in July 2016. • PD&R houses the Office of International and Philanthropic Innovation, and administers five types of Secretary's Awards to encourage excellence: Public-Philanthropic Partnerships, Opportunity and Empowerment, Healthy Homes, Historic Preservation, and Housing and Community Design. The competitions are judged by juries of professionals, and bring visibility to the nation's most compelling solutions for addressing housing and community development challenges. • PD&R sponsors an Innovation in Affordable Housing Competition to engage multidisciplinary teams of graduate students in addressing a specific housing problem developed by an actual public housing agency. The competition increases the nation's future human capacity to address the affordable housing crisis by exposing future designers, administrators, and policymakers to real-world challenges of a specific legal and community context, with their proposals to be evaluated by an expert jury. • In FY16, HUD's National Disaster Resilience Competition is providing funding for resilient housing and infrastructure projects to states and communities that suffered major disasters. Collaborative teams were assisted in extensively researching and developing their proposals by nine Resilience Academies developed by the Rockefeller Foundation in partnership with HUD. The in-depth, juried process is ensuring that the $1 billion of resources available for these communities in FY16 will result in more resilient housing and infrastructure and bridge the gap between social and physical vulnerabilities. USDOL: • DOL is participating in the Performance Partnership Pilots (P3) for innovative service delivery for disconnected youth which includes not only waivers and blending and braiding of federal funds, but gives bonus points in application reviews for proposing "high tier" evaluations. DOL is the lead agency for the evaluation of P3. DOL's CEO and ETA prepared an evaluation technical assistance webinar for P3 grantees in 2014 and will be repeated for the next round of grantees in 2016. Beginning in FY16, the national P3 evaluation contractor is also providing evaluation TA to grantees for methodological design issues and data and management information systems. • DOL has initiated six behavioral insights tests (three in unemployment insurance, two in OSHA, and one in EBSA for pension contributions), and two behavioral insights testing different messaging to encourage voluntary compliance embedded into a larger experimental evaluations (in OSHA and Unemployment Insurance). The behavioral tests are being conducted in FY16. Initial findings will be released in April 2016 and will be posted on the CEO website.

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8. Use of Evidence in 5 Largest Competitive Grant Programs: Did the agency use evidence of effectiveness when allocating funds from its 5 largest competitive grant programs in FY16?	**ACF:** • In FY16 the 5 largest competitive grant programs are: 1) Head Start ($9,168,095,000); 2) Unaccompanied Children Services ($948,000,000); 3) Early Head Start-Child Care Partnerships ($915,799,422); 4) Transitional and Medical Services ($490,000,000); and 5) Preschool Development Grants ($250,000,000). • ACF's template (see p. 14 in Attachment C) for grant announcements includes two options, requiring grantees to either 1) collect performance management data that contributes to continuous quality improvement and is tied to the project's logic model, or 2) conduct a rigorous evaluation for which applicants must propose an appropriate design specifying research questions, measurement and analysis. • In FY12, ACF established the Head Start Designation Renewal System requiring Head Start ($9.2 billion in FY16) grantees to compete for grants moving forward if they failed to meet criteria related to service quality, licensing and operations, and fiscal and internal control. • ACF's Personal Responsibility Education Program ($75 million in FY16) includes three individual discretionary grant programs that support evidence-based competitive grants that teach youth about abstinence and contraception to prevent pregnancy and sexually transmitted infections. • To receive funds through ACF's Community Based Child Abuse Prevention (CBCAP) program, states must "demonstrate an emphasis on promoting the increased use and high quality implementation of evidence-based and evidence-informed programs and practices." CBCAP defines evidence-based and evidence-informed programs and practices along a continuum with four categories: Emerging and Evidence-Informed; Promising; Supported; and Well Supported. Programs determined to fall within specific program parameters will be considered to be "evidence informed" or "evidence-based" practices (EBP), as opposed to programs that have not been evaluated using any set criteria. ACF monitors progress on the percentage of program funds (most recently 89.4% in FY14) directed towards evidence-based and evidence-informed practices. **CNCS:** • In CNCS is operating three competitive grant programs in FY16: 1) AmeriCorps State and National program (excluding State formula grant funds) ($386 million in FY16); 2) Senior Corps RSVP program ($49 million in FY16); and 3) the Social Innovation Fund (SIF) ($50 million in FY16). • SIF provides competitive grants to non-profit grant-making organizations to help them grow promising, evidence-based solutions that address pressing economic opportunity, healthy futures, and youth development issues in low- income communities. The FY14-16 Omnibus Appropriations Acts have allowed CNCS to invest up to 20% of SIF funds each year in Pay for Success initiatives. There are 2 Pay for Success competitions planned for FY16, which will invest both the FY15 and 16 appropriations (approximately $11.6 million at minimum). • CNCS's AmeriCorps State and National Grants Program (excluding State formula grant funds), application (see pp. 10-14) allocated up to 27 points out of 100 to organizations that submit applications supported by performance and evaluation data in FY16. Specifically, up to 15 points can be assigned to applications with theories of change supported by relevant research literature, program performance data, or program evaluation data; and up to 12 points (a 4 point increase from FY15) can be assigned for an applicant's incoming level of evidence with the highest number of points awarded to strong levels of evidence. These categories of evidence are modeled closely on the levels of evidence defined in the Social Innovation Fund. • In FY16, Senior Corps RSVP grantees seeking funding (see p. 1) through the administrative renewal process are encouraged to fulfill the National Performance Measures requirement by committing a certain number of volunteers to serve in an evidence-based health education program. A total of $500,000 (just above 1% of program funds) is allocated to support organizations in implementing evidence-based interventions or to evaluate programs.

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8. Use of Evidence in 5 Largest Competitive Grant Programs: Did the agency use evidence of effectiveness when allocating funds from its 5 largest competitive grant programs in FY16?	MCC: • MCC awards all of its agency funds through two competitive grant programs: Compact and Threshold programs (whose budgets for FY16 were $667 and $30 million respectively). Both require demonstrable, objective evidence to support the likelihood of success in order to be awarded funds. For country partner selection, MCC uses twenty different indicators within the categories of economic freedom, investing in people, and ruling justly to determine country eligibility for program assistance. These indicators (see MCC's FY2016 Guide to the Indicators) are collected by independent third parties. When considering granting a second compact, MCC considers 1) the degree to which there is evidence of strong political will and management capacity, 2) the degree to which the country has exhibited commitment and capacity to achieve program results, and 3) the degree to which the country has implemented the compact in accordance with MCC's core policies and standards. • Following country selection, MCC conducts a constraints analysis (CA) to identify the most binding constraints to private investment and entrepreneurship that hold back economic growth. The results of this analysis enable the country, in partnership with MCC, to select compact or threshold activities most likely to contribute to sustainable poverty-reducing growth. Due diligence, including feasibility studies where applicable, are conducted for each potential investment. MCC also performs Cost-Benefit Analysis to assess the potential impact of each project, and estimates an Economic Rate of Return. MCC projects generally have an ERR above 10% at project inception, and MCC recalculates ERRs at compact closeout in order to test original assumptions and assess the cost effectiveness of MCC programs. In connection with the ERR, MCC conducts a Beneficiary Analysis, which seeks to describe precisely which segments of society will realize the project benefits. It is most commonly used to assess the impact of projects on the poor, but it has broader applicability that allows for the estimation of impact on populations of particular interest, such as women, the aged, children, and regional or ethnic sub-populations. In line with MCC's M&E policy, MCC projects are required to submit quarterly Indicator Tracking Tables showing progress toward projected targets. MCC also requires independent evaluations of every project to assess progress in achieving outputs and outcomes throughout the lifetime of the project and beyond..

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8. Use of Evidence in 5 Largest Competitive Grant Programs: Did the agency use evidence of effectiveness when allocating funds from its 5 largest competitive grant programs in FY16?	USAID:
	• USAID is committed to using evidence of effectiveness in all of its competitive contracts, cooperative agreements and grants, which comprise the majority of the Agency's work. USAID has rebuilt its planning, monitoring, and evaluation framework to produce and use evidence through the introduction of a new Program Cycle, which systematizes use of evidence across all decision-making regarding grants and all of USAID's work. The Program Cycle is USAID's particular framing and terminology to describe a common set of processes intended to achieve more effective development interventions and maximize impacts. The Program Cycle acknowledges that development is not static and is rarely linear, and therefore stresses the need to assess and reassess through regular monitoring, evaluation, and learning. Thus the different components of the Program Cycle mutually reinforce each other by having learning and adapting integrated throughout. The Program Cycle encourages planning and project management innovations to increase the cost-effectiveness and lasting impact of development cooperation.
	• In 2013, USAID reformed its policy for awarding new contracts to elevate past performance to comprise 20 to 30 percent of the non-cost evaluation criteria. For assistance, USAID does a "risk assessment" to review an organization's ability to meet the goals and objectives outlined by the Agency. This can be found in ADS 303, section 303.3.9. Contractor performance is guided by USAID operational policy ADS 302, section 302.3.8.7. As required in FAR Subpart 42.15, USAID must evaluate contractor performance using the Contractor Performance Assessment Reporting System (CPARS). Information in CPARS, while not available to the public, is available for Contracting Officers across the Government to use in making determinations of future awards.
	• USAID has also instituted a policy called the Acquisition and Assistance Review and Approval Document (AARAD) process where all contracts, grants, and cooperative agreements over $75 million are reviewed by the Administrator prior to being awarded and all awards over $25 million are reviewed by the relevant Assistant Administrators. Included in the AARAD review are several key factors that include: Policy Relevant, Commitment to Sustainable Results, Feasibility, and Value for Money. This policy ensures that results, evidence, and long-term strategies are incorporated into all of USAID's major programs. In addition, it ensures senior level accountability on USAID's biggest programs. This policy is outlined in ADS 300. USAID guidance for competitive grants is also available online.
	• The Development Innovation Ventures program ($22.4 million in FY16) provides funding for proof of concept through rigorous evaluation of innovative solutions, and scale-up funding when a solution is proven to work. DIV's approach is unique in three ways:
	  1. DIV recognizes that good ideas can come from anywhere, so they welcome a wide range of potential partners to propose their concepts for high-impact development solutions.
	  2. Borrowing from the experience of venture capital, DIV takes advantage of a staged financing model. They pilot promising new ideas with small amounts of money, and we scale only those solutions that rigorously demonstrate their impact.
	  3. DIV emphasizes a high standard of evidence, including the use of impact evaluations and randomized control trials whenever possible.

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8. Use of Evidence in 5 Largest Competitive Grant Programs: Did the agency use evidence of effectiveness when allocating funds from its 5 largest competitive grant programs in FY16?	USED: • ED's five largest competitive grant programs in FY16 include: 1) TRIO ($900 million); 2) GEAR UP ($323 million); 3) Teacher Incentive Fund ($230 million); 4) Charter Schools Grants ($333 million); and 5) Preschool Development Grants ($250 million). • The Evidence Planning Group (EPG) advises program offices on ways to incorporate evidence in grant programs, including use of evidence as an entry requirement or priority to encourage the use of practices where there is evidence of effectiveness, and/or an exit requirement or priority to build new evidence. For the past several years, ED has reported publicly on Performance.gov on its Agency Priority Goal (APG) focused on directing an increasing percentage of funds available for new competitive awards towards projects that are supported by evidence. In FY15, ED spent 29% of its funding available for new discretionary awards on projects that are supported by promising, moderate, or strong evidence, based on EDGAR evidence levels, surpassing both the FY15 and FY16 targets for that APG. • While not all of ED's FY16 decisions have been finalized yet, ED has announced the following FY16 competitions, which include the use of evidence beyond a logic model: 1) Alaska Native and Native Hawaiian Serving Institutions, 2) Asian American and Native American Pacific Islander-Serving Institutions Program, 3) College Assistance Migrant Program, 4) Educational Technology, Media, and Materials for Individuals with Disabilities—Stepping-up Technology Implementation, 5) High School Equivalency Program, 6) Hispanic-Serving Institutions - Science, Technology, Engineering, or Mathematics, 7) National Professional Development, 8) Native American-Serving Nontribal Institutions Program, 9) Technical Assistance and Dissemination To Improve Services and Results for Children With Disabilities, and 10) TRIO Talent Search. • The Investing in Innovation (i3) program ($120 million in FY16) provides competitive grants to local school districts and non-profit organizations that have demonstrated positive impacts to innovate, expand, and scale evidence-based activities to improve student achievement, although details for the FY16 competition have not been announced. ESSA authorizes an Education Innovation and Research (EIR) Grants program. • Additionally, ESSA requires that ED give priority to applicants demonstrating strong, moderate, or promising levels of evidence within the following seven competitive grant programs: Literacy Education for All, Results for the Nation; Supporting Effective Educator Development; School Leader Recruitment and Support; Statewide Family Engagement Centers; Promise Neighborhoods; Full-Service Community Schools; and Supporting High-Ability Learners and Learning. • ESSA authorizes the Supporting Effective Educator Development program that awards grants to applicants with a demonstrated record of improving student outcomes while giving priority to applicants demonstrating strong, moderate, or promising evidence of effectiveness (as described above). And ESSA authorizes the Replication and Expansion of High-Quality Charter Schools program that awards grants to applicants based on their demonstrated success in improving student outcomes. • ED's FY17 budget, which for P-12 programs is based on ESSA, prioritizes funding evidence-based activities. For example, the budget includes $180 million for the EIR program, an increase of $60 million over the FY16 enacted level for its predecessor, the i3 program. ED also proposes building new evidence to increase the effectiveness of the Magnet Schools Assistance Program. Requests like the $100 million in FITW program, $30 million HBCU/MSI Innovation for Completion Fund competitive grant program, and the use of up to $20 million to develop a TRIO Demonstration Initiative, in consultation with the TRIO community, demonstrate ED's commitment to building and using evidence to improve college access and completion.

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8. Use of Evidence in 5 Largest Competitive Grant Programs: Did the agency use evidence of effectiveness when allocating funds from its 5 largest competitive grant programs in FY16?	**USHUD**: • In FY16 HUD's major competitive grant programs are: 1) Homeless Assistance ($1.9 billion); 2) Disaster Assistance/National Disaster Resilience Competition ($300 million); 3) Choice Neighborhoods Grants program ($125 million); 4) Service Coordinators program ($77 million); and 5) Family Self-Sufficiency Program Coordinators ($73 million). • The National Disaster Resilience Competition used evidence about disaster resilience, including benefit/cost analysis, to ensure that disaster funding improves communities' ability to withstand and recover more quickly from future disasters, hazards, and shocks rather than simply recreating the same vulnerabilities. • Decisions regarding the design, funding, and implementation of all HUD competitive grant programs are evidence-based, as specified in funding criteria in HUD's FY16 Notice of Funding Availability (NOFA). The "Achieving Results and Program Evaluation" factor (see p.13), provides funding priority for applicants that demonstrate effective use of evidence in identifying or selecting the proposed practices, strategies, or programs proposed in the application, and requires all grantees to cooperate in HUD-funded research and evaluation studies (see p. 14). Another factor, "Past Performance," provides: "In evaluating applications for funding HUD will take into account an applicant's past performance in managing funds, including, but not limited to…. meeting performance targets as established in Logic Models or other performance evaluation tools approved as part of the grant agreement…." (see p. 14). The "Achieving Results and Program Evaluation" factor and "Past Performance" factor are two of five factors considered that total 100 points. The maximum achievable score, with priority points and bonus points, is 106. **USDOL**: • In FY16, the five largest competitive grant programs awarded were: 1) American Apprenticeship Initiative ($175 million), 2) Face Forward Grants Program ($59 million), 3) Disability Employment Initiative ($60 million), 4) Homeless Veterans Reintegration Program ($35 million), and 5) the Workforce Innovation Fund/Pay for Success 2016 ($35 million in FY16). All have national evaluations designed by CEO and the relevant agencies, and two also require grantees to use a portion of their fund for high-quality evaluations on which incentive and priority points were received in the application funding competitive selection process. • DOL includes rigorous evaluation requirements in all competitive grant programs, involving either: 1) full participation in a national evaluation as a condition of grant receipt; 2) an independent third-party local or grantee evaluation with priority incentives for rigorous designs (e.g., tiered funding, scoring priorities, bonus scoring for evidence-based interventions or multi-site rigorous tests), or 3) full participation in a national evaluation as well as rigorous grantee (or local) evaluations. The $10 million Linking to Employment Assistance Pre-Release Grant program to improve employment for formerly incarcerated individuals serves as an example of the requirement to participate in a national evaluation as a condition of the grant. • The Trade Adjustment Assistance Community College and Career Training Grant Program (TAACCCT) program ($2 billion in FY12-14 available through FY 2017; including $410 million in FY 2016) provides grants to community colleges and other higher education institutions to develop and expand evidence-based education and training for dislocated workers changing careers. Up to 10% of each grant can be spent on evaluation. DOL has awarded $11 million for technical assistance and a national evaluation of the program. • The Workforce Innovation Fund grants ($232 million total, including $35 million awarded in FY 2016) and Pay for Success ($35 million total) are awarded to rigorously test innovation training and employment strategies, with rigorous evaluations incorporated into the programming. PFS is a social investment pilot with payment based on rigorous randomized control trial impacts.

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9. Use of Evidence in 5 Largest Non-Competitive Grant Programs: Did the agency use evidence of effectiveness when allocating funds from its 5 largest non-competitive grant programs in FY16? *(Note: Meeting this criteria requires both Agency and Congressional action.)*	**ACF**: • In FY16, ACF's 5 largest non-competitive grant programs are: 1) Temporary Assistance for Needy Families ($17,345,407,000); 2) Child Care and Development Fund (Block Grant and Entitlement to States combined) ($5,678,000,000); 3) Foster Care ($4,799,573,280); 4) Child Support Enforcement Payments to States ($4,303,998,000); and 5) Low Income Home Energy Assistance ($3,390,304,000). • ACF's Foster Care program ($4.8 billion in FY16) has approved over 30 jurisdictions to develop and implement child welfare waiver demonstration projects to improve outcomes for children in foster care or at risk for entry or re-entry into foster care. Through these demonstrations, ACF waives provisions of law to allow flexible use of funding normally limited to foster care for other child welfare services. Many participating jurisdictions are implementing evidence-based or evidence-informed interventions and all demonstration projects are required to have a rigorous evaluation conducted by a third-party evaluator. Although ACF does not currently have statutory authority to grant new waivers, current projects are expected to continue through September 30, 2019. General information on this program, including a fact sheet and summary of relevant legislation/policy, is available at the online Children's Bureau portal. **CNCS**: • CNCS operates one formula grant program, the AmeriCorps State formula grants program ($130 million in FY16). CNCS also operates four direct grant programs in FY16: 1) National Civilian Community Corps (NCCC) ($30 million in FY16), 2) VISTA ($92 million in FY16), 3) Senior Corps Foster Grandparents ($108 million in FY16), and 4) Senior Corps Senior Companion Program ($46 million in FY16). • In FY16, for the first time, the Senior Corps Foster Grandparents and Senior Companion programs embedded evidence into their grant renewal processes by offering supplemental funding to grantees interested in deploying volunteers to serve in evidence-based programs (see pp. 2-4) and providing evaluation data on implementation fidelity, including outcomes. A total of $400,000.00 is allocated for the Foster Grandparents program in FY16, or .4% of program funds. A total of $300,000.00 is allocated for the Senior Companion program in FY16, or .65% of program funds. • VISTA is currently developing a theory of change that will make explicit the link between the work that the volunteers perform, the design of a sponsor's project to address community needs, and the evidence to support this activity. This effort will impact several management aspects including project approval, volunteer assignment descriptions, member activity, data collection, and the role of evidence in the design and implementation of projects. **MCC**: • MCC does not administer non-competitive grant programs. **USAID**: • USAID does not administer non-competitive grant programs. • USAID does contribute funding to multilateral institutions known as Public International Organizations (PIOs), which are listed here, and include the World Bank, UN, and multi-donor funds such as the Global Fund. A Public International Organization (PIO) is an international organization composed principally of countries. In these specific cases, USAID funds are part of overall US Government funding for these partner institutions. These funds become subject to the monitoring and evaluation requirements of the organization that receives them. For example, the Global Fund has a performance-based funding system, which bases funding decisions on a transparent assessment of results against time-bound targets. USAID's ADS chapter 308 provides more information on how PIOs are defined and includes guidance related to due diligence required prior to awarding grants to PIOs.

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9. Use of Evidence in 5 Largest Non-Competitive Grant Programs: Did the agency use evidence of effectiveness when allocating funds from its 5 largest non-competitive grant programs in FY16? *(Note: Meeting this criteria requires both Agency and Congressional action.)*	USHUD: • HUD's budget contains 3 large formula grant programs for public housing authorities (PHAs): 1) the Public Housing Operating Fund ($4.5 billion in FY16), 2) the Public Housing Capital Grants ($1.8 billion in FY16), and 3) Housing Choice Voucher (HCV) Administrative Fees ($1.7 billion in FY16). Another 3 formula grant programs serve cities or tribes: 1) Community Development Block Grant Entitlement/Non-Entitlement ($3.0 billion in FY16), 2) HOME Investment Partnerships ($0.9 billion in FY16), and 3) Native American Housing Block Grants ($0.6 billion in FY16). • Although the funding formulas are prescribed in statute, evaluation-based evidence is central to each program. HUD is using evidence from a 2015 Administrative Fee study of the costs that high-performing PHAs incur in administering a HCV program to propose a new FY17 approach for funding Administrative Fees while strengthening PHA incentives to improve HCV outcomes by providing tenant mobility counseling. • HUD is also conducting a Rent Reform demonstration and a Moving To Work (MTW) demonstration to test efficiencies of changing rent rules. • HUD also is conducting an extensive assessment of Native American, Alaska Native, and Native Hawaiian housing needs to strengthen the evidence base for the formula programs. USDOL: • In FY16, the 5 largest non-competitive grant programs at DOL are in the Employment and Training Administration, all of which allocate funding, by statute, and all include performance metrics (e.g., unemployment insurance payment integrity, WIOA common measures) tracked quarterly: 1) the Unemployment Insurance State grants ($2.6 billion in FY 2016); 2) the Employment Security program state grants ($680 million in FY 2016); and 3) three authorized programs under the Workforce Innovation and Opportunity Act (WIOA). The 3 WIOA-authorized grants are: 1) Youth Workforce Investment program ($873 million in FY 2016), 2) Adult Employment and Training program ($816 million in FY 2016), and 3) Dislocated Workers Employment and Training program ($1.2 billion in FY 2016). • WIOA includes evidence and performance provisions beginning in Program Year 2016 which: (1) increase the amount of WIOA funds states can set aside and distribute directly from 5-10% to 15% and authorize them to invest these funds in Pay for Performance initiatives; (2) authorize states to invest their own workforce development funds, as well as non-federal resources, in Pay for Performance initiatives; (3) authorize local workforce investment boards to invest up to 10% of their WIOA funds in Pay for Performance initiatives; and (4) authorize States and local workforce investment boards to award Pay for Performance contracts to intermediaries, community based organizations, and community colleges.

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10. <u>Repurpose for Results</u>: In FY16, did the agency shift funds away from any practice, policy, or program which consistently failed to achieve desired outcomes? *(Note: Meeting this criteria requires both Agency and Congressional action.)*	<u>ACF</u>: • In FY12, ACF established the <u>Head Start Designation Renewal System</u> requiring Head Start ($9.2 billion in FY16) grantees to compete for grants moving forward if they failed to meet criteria related to service quality, licensing and operations, and fiscal and internal controls. The 2007 Head Start Reauthorization Act made all Head Start grants renewable, five-year grants. At the end of each five-year term, grantees that are running high-quality programs will have their grants renewed. But grantees that fall short of standards are now required to compete to renew grants. Grantees whose ratings on any of the three domains of the Classroom Assessment Scoring System, an assessment of adult:child interactions linked to improved outcomes, fall below a certain threshold, or in the lowest 10 percent of grantees, must also compete. • ACF's FY17 <u>budget request</u> (p. 418) proposes to eliminate funding for Abstinence Education grants because the program is not focused on funding evidence-based models. <u>CNCS</u>: • In FY13-FY14, Mile High United Way, a grantee of the Social Innovation Fund (SIF), ended funding relationships with 3 of its sub-grantees who were not able to conduct rigorous evaluations of their activities. In FY15, United Way for Southeastern Michigan, also a SIF grantee, ended its funding relationship with one of its sub-grantees for the same reason. These actions are consistent with the <u>SIF National Assessment</u> findings, which recognize the role SIF has played in fostering evidence-based grant making among its grantees. <u>MCC</u>: • MCC has established a <u>Policy on Suspension and Termination</u> that describes the process and procedures for suspension and termination of MCC assistance in cases in which partner countries are not living up to their commitments. MCC has suspended or <u>terminated</u> a compact partnership, in part or in full, seven times out of 33 compacts approved to date, and has suspended partner country eligibility to develop a compact an additional four times (most recently with the suspension of Tanzania in March 2016). In 2012 MCC suspended <u>Malawi's Compact</u> due to a pattern of actions by the Government of Malawi that was inconsistent with the democratic governance evidence criteria that MCC uses for selection. However, the Government of Malawi took a number of decisive steps to improve the human rights environment and to ensure that laws and institutions support democratic rights and processes. These steps and the resumption of sound economic policy led to the reinstatement of Malawi's Compact in 2012. • MCC also consistently monitors the progress of Compact programs, and makes changes as necessary. For example, an activity in the Philippines, the Electronic Tax Information System (eTIS), an activity under the Revenue Administration Reform Project, was <u>reduced in scope</u> in FY15 due to time and completion risks. This proactive approach allowed MCC to judiciously reallocate funds to finance additional subprojects under the Kalahi-CIDSS Community-Driven Development Project (K-C) and further maximize the project's benefits.

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10. Repurpose for Results: In FY16, did the agency shift funds away from any practice, policy, or program which consistently failed to achieve desired outcomes? *(Note: Meeting this criteria requires both Agency and Congressional action.)*	**USAID**: • USAID uses rigorous evaluations to maximize its investments. A recent independent study found that 71 percent of USAID evaluations have been used to modify and/or design USAID projects. Below are a few examples where USAID has shifted funds and/or programming decisions based on performance: • **Mozambique**: Many donors working in the education sector in Mozambique were using traditional reading programs to improve early grade literacy. USAID recently designed an impact evaluation to test whether reading interventions alone or reading interventions paired with school management support led to improved reading outcomes. Findings from a mid-term impact evaluation found that pairing reading instruction interventions with school management support improved reading outcomes more than reading instruction alone, and was more cost effective. Based on these findings. USAID Mozambique changed the way it worked in Mozambique, and the findings prompted the Government of Mozambique to request that this approach be scaled from 120 schools to 1,060 new schools. More information can be found in the recently published report on USAID evaluation practice. • **Armenia**: A 2013 mid-term evaluation of USAID/Armenia's flagship health program revealed a number of significant design and implementation flaws, which prompted the Mission to terminate the program early and saved USG resources. Since then, USAID/Armenia has redesigned its health portfolio to focus on areas where it can make difference and leave a positive legacy, as it phases out from the sector. • **Latin America and Caribbean Bureau**: USAID's Latin America and Caribbean (LAC) Bureau no longer funds expensive out-of-country scholarship programs such as the Scholarship for Education and Economic Development (SEED) and other precursor programs. A 2013 evaluation of the Latin America and Caribbean region's Higher Education Scholarships Program looked at the cost-effectiveness of providing students with scholarships to study at US institutions and determined that USAID could provide improved training opportunities for many more poor youth by focusing resources on improving the quality of LAC regional or in-country training institutions. This finding informed a redesign of the program and the issuing of a new Request for Applications (RFA). • **Indonesia**: In 2013, a USAID Indonesia changed the geographic targeting of a forestry program based on a USAID-commissioned evaluation that found that the program was spread out among too many geographic locations and could be more effective by focusing on fewer locations. This example can be found in the recently published independent study on evaluation use at USAID. • In 2011, a USAID-commissioned evaluation of a USAID/Afghanistan road rehabilitation program found that cooperative agreements and grants are not as effective implementing mechanisms as contracts in terms of the levels of implementing partner accountability to USAID, particularly in regards to infrastructure activities. In part as a result of this evaluation's findings, in 2013 USAID released a new operating policy, entitled "USAID Implementation of Construction Activities," that mandates the use of contracts rather than grant or cooperative agreement mechanisms for projects that involve construction. **USED**: • Since 2010, ED has worked with Congress to eliminate 50 programs, saving more than $1.2 billion, including programs like Even Start (see pp. A-72 to A-73) (-$66.5 million in FY11) and Mentoring Grants (see p. G-31) (-$47.3 million in FY10), which the Department recommended eliminating out of concern based on evidence. • ED also tries to shift program funds to support more effective practices by prioritizing the use of entry evidence. For ED's grant competitions where there is evaluative data about current or past grantees, or where new evidence has emerged independent of grantee activities, ED typically reviews such data to shape the grant competition design of future projects. For example, an impact evaluation of the Teacher Incentive Fund (TIF) will inform ED's FY16 competition design for TIF, including focusing applicants' attention on practices more likely to be effective. • Additionally, ED uses evidence in competitive programs to encourage the field to shift away from less effective practices and toward more effective practices. For example, ESSA's Education Innovation and Research (EIR) program - the successor to i3 - supports the creation, development, implementation, replication, and scaling up of evidence-based, field-initiated innovations designed to improve student achievement and attainment for high-need students.

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10. Repurpose for Results: In FY16, did the agency shift funds away from any practice, policy, or program which consistently failed to achieve desired outcomes? *(Note: Meeting this criteria requires both Agency and Congressional action.)*	USHUD: • HUD's FY17 budget request includes a new formula for funding Housing Choice Voucher Administrative Fees that shifts funding away from inappropriately compensated public housing agencies and increases overall funding according to evidence about actual costs of maintaining a high-performing voucher program. (See here for more info.) • The Administration's FY17 request recommends shifting support from homeless interventions shown to have limited effectiveness toward housing vouchers that were proven effective in the Family Options study. USDOL: • DOL's evidence-based strategy is focused on program performance improvement and expansion of strategies and programs on which there is evidence of positive impact from rigorous evaluations. The department takes all action possible to improve performance before considering funding reductions or program termination. However, DOL does use program performance measures to make decisions about future funding. For example there is currently a proposal to close a Job Corps Center because of its chronic low performance. Closure of this center will allow DOL to shift limited program dollars to centers that will better serve students by providing the training and credentials they need to achieve positive employment and educational outcomes. In a Federal Register notice published in March 2016, DOL requested public comments on this proposal. Additionally, all discretionary grant performance is closely monitored and has been used to take corrective action and make decisions about continued funding.

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About the Results for America Federal Invest in What Works Index

Results for America's Federal Invest in What Works Index (2016) highlights the extent to which the Administration for Children and Families (within HHS); Corporation for National and Community Service; Millennium Challenge Corporation; U.S. Agency for International Development; U.S. Department of Education; U.S. Department of Housing and Urban Development and U.S. Department of Labor are currently building the infrastructure necessary to be able to use data, evidence and evaluation in budget, policy, and management decisions. It is important to note that:

- Results for America developed the criteria and scoring structure in the attached index in close consultation with more than 75 current and former Federal government officials and key stakeholders from all across the country.

- The purpose of the attached index is to educate members of the general public as well as public, private, and non-profit sector leaders on how federal departments and agencies are currently using data, evidence and evaluation to invest taxpayer dollars in what works.

- Results for America gave the federal departments and agencies included in the attached index multiple opportunities to review and comment on the content and presentation of the information included in it. We greatly appreciate their willingness to help us develop this document and their continued commitment to making the federal government as effective and efficient as possible. Since we recognize that it is very difficult to distill complex practices, policies, and programs into a single cross-agency scorecard, we exercised our best judgment and relied on the deep expertise of leaders both within and outside of the federal government during the development of the attached index.

- Results for America released four previous versions of this Invest in What Works Index in; June 2013, September 2013, May 2014 and March 2015.

Scoring

The attached index assesses seven federal departments and agencies against 10 data, evidence and evaluation criteria. Each criteria was equally weighted and scored on a scale of 0-10 resulting in a total possible score of 100 points. Federal departments and agencies were given 1-3 points if they have demonstrated an intent to meet the stated criteria; 4-5 points if they have demonstrated some initial internal progress toward meeting the criteria; 6-7 points if they have made some initial public progress toward meeting the criteria; 8-9 points if they have made some meaningful public progress toward meeting the criteria; and 10 points if they have fully and successfully met the criteria. These scores are based on the information and links provided by these seven departments and agencies.

About Results for America

Results for America is improving outcomes for young people, their families, and communities by shifting public resources toward evidence-based, results-driven solutions. RFA is working to achieve this goal by building a strong bipartisan "Invest in What Works" coalition; developing and advancing the next generation of evidence-based, results-driven practices, policies, and programs; and supporting leaders at all levels of government to invest in what works.

In November, 2014, Results for America published *Moneyball for Government*, the national bestselling book that brings together a group of bipartisan leaders and makes the case for government at all levels to inform public policy and funding decisions by using the best possible data, evidence and evaluation about what works. In January, 2016, RFA published the second edition of Moneyball for Government featuring a new bipartisan chapter about the importance of using data and evidence to drive U.S. foreign assistance. For more information about Results for America, visit www.results4america.org.

MONEYBALL FOR GOVERNMENT PRINCIPLES

Government at all levels should help improve outcomes for young people, their families, and communities by:

- Building evidence about the practices, policies and programs that will achieve the most effective and efficient results so that policymakers can make better decisions;
- Investing limited taxpayer dollars in practices, policies and programs that use data, evidence and evaluation to demonstrate they work; and
- Directing funds away from practices, policies, and programs that consistently fail to achieve measurable outcomes.

MONEYBALL FOR GOVERNMENT ALL STARS

The following 126 local, state, and national leaders from across the political spectrum support the Moneyball for Government Principles and have agreed to be publicly identified as Moneyball for Government All-Stars:

Founding All-Stars: Michael Bloomberg (Former Mayor, New York City); Peter Orszag (Former Director, Office of Management and Budget under President Obama); Jim Nussle (Former U.S. Rep., R-IA; Former U.S. House Budget Committee Chairman; and Former Director, White House Office of Management and Budget under President G.W. Bush); Melody Barnes (Former Director, White House Domestic Policy Council under President Obama); and John Bridgeland (Former Director, White House Domestic Policy Council under President G.W. Bush);

Federal All-Stars: U.S. Senator Kelly Ayotte (R-NH); U.S. Senator Michael Bennet (D-CO); U.S. Senator Orrin Hatch (R-UT); U.S. Senator Jeanne Shaheen (D-NH); U.S. Senator Mark Warner (D-VA); Former U.S. Senator Mary Landrieu (D-LA); Speaker of the U.S. House of Representatives Paul Ryan (R-WI); U.S. Representative Todd Young (R-IN); U.S. Representative John Delaney (D-MD); Gene Sperling (Former Director, White House National Economic Council under Presidents Obama and Clinton); Austan Goolsbee (Former Chairman, White House Council of Economic Advisors under President Obama); Richard Riley (Former U.S. Secretary of Education under President Clinton); Robert E. Rubin (Former Secretary of the U.S. Treasury Department under President Clinton); Henry Paulson (Former Secretary of the U.S. Treasury Department under President G. W. Bush); Margaret Spellings (Former U.S. Secretary of Education under President G.W. Bush); Glenn Hubbard (Former Chairman, White House Council of Economic Advisers under President G.W. Bush); Laura D. Tyson (Former Chair, President's Council of Economic Advisers, and former White House National Economic Council Director); and Roger Porter (Former Assistant to the President for Economic

and Domestic Policy under President George H.W. Bush; former Director, White House Office of Policy Development under President Reagan; and former Executive Secretary of the President's Economic Policy Board under President Ford);

State All-Star: VA Governor Terry McAuliffe;

Local All-Stars: Richard J. Berry (Mayor of Albuquerque); Kasim Reed (Mayor of Atlanta); Stephanie Rawlings-Blake (Mayor of Baltimore); Martin Walsh (Mayor of Boston); Michael Hancock (Mayor of Denver); Karen Freeman-Wilson (Mayor of Gary); Stephen Goldsmith (Former Mayor of Indianapolis); Sly James (Mayor of Kansas City); Eric Garcetti (Mayor of Los Angeles); Greg Fischer (Mayor of Louisville); Mitch Landrieu (Mayor of New Orleans); Bill de Blasio (Mayor of New York City); Michael Nutter (Former Mayor of Philadelphia); Angel Taveras (Former Mayor of Providence); Ben McAdams (Mayor of Salt Lake County); Julian Castro (Former Mayor of San Antonio; current Secretary, U.S. Department of Housing and Urban Development); and Ed Murray (Mayor of Seattle);

Non-Profit All-Stars: 85 non-profit CEOs, presidents, and executive directors also support our Moneyball for Government Principles.

What Works Cities

What Works Cities is a national initiative working with cities across the country to enhance their use of data and evidence to engage residents, make government more effective and improve lives.

Launched in April 2015, What Works Cities is one of the largest-ever philanthropic efforts to improve local governments' data and evidence practices and was named by Forbes as "one of the biggest philanthropic bets on social change from 2015."

Through world-class partners, the initiative provides technical assistance to cities with populations between 100,000 and 1,000,000 that are committed and excited to improve the way they use data in governance. What Works Cities collaborates with participating municipalities to review their current use of data and evidence, understand where they are utilizing best practices and identify areas for growth. What Works Cities then designs a customized approach to help mayors and city leaders use data and evidence to address a variety of local issues, including economic development and job creation, public health, and social services.

What Works Cities' support is guided by the **WWC Standard**, which reflects a set of principles and systems that create a strong foundation for the effective use of data and evidence in city government. The components of the WWC Standard reflect the kinds of work city leaders have taken on across the United States to advance What Works practices in their cities:

1	2	3	4
Commit	**Measure**	**Take Stock**	**Act**
What Works leaders make powerful, public commitments to getting better results for their residents by using data and evidence.	What Works cities advance toward goals by measuring progress and outcomes, prioritizing transparency, and using appropriate tools.	What Works Cities leaders consistently review and reflect to measure progress, learn, and make adjustments and improvements.	What Works Cities leaders use data and evidence to inform major decisions and take action.

As of April 2016, 39 cities in 25 states have been selected to join the initiative.

Our cities represent a diverse cross-section of the country, demonstrating that all types of cities can be What Works Cities. Many of these local governments have already made substantial progress through their work with What Works Cities by passing open data policies, engaging the public with city data, launching performance analytics programs to define and track progress on city goals, and undertaking new efforts to evaluate programs and manage contracts more effectively.

Participating cities receive expert guidance and technical assistance from What Works Cities' partner organizations:

- **Results for America** ensures a world-class experience for all participating cities, coordinates the operations of the What Works Cities initiative, and advances a nationwide dialogue on the need for cities to use data and evidence in decision-making.
- **The Center for Government Excellence at Johns Hopkins University** works with cities to assess the current state of What Works practices, and supports implementation and enhancement of open data and performance analytics programs.
- **The Government Performance Lab at the Harvard Kennedy School** supports cities in improving the results they achieve with their contracted dollars.
- **The Sunlight Foundation** helps cities craft meaningful and sustainable open data policies.
- **The Behavioral Insights Team** helps cities conduct rapid, low-cost evaluations of programs so they can continually improve city services.

What Works Cities is also creating a growing community of cities that share learnings and best practices that will continue long after the technical assistance has ended. We are building a movement of cities around the country that are demonstrating how powerful these practices can be in improving the strength of cities and the lives of their residents.

To learn more about the What Works Cities initiative, visit www.whatworkscities.org

About Bloomberg Philanthropies:

Bloomberg Philanthropies works in over 120 countries around the world to ensure better, longer lives for the greatest number of people. The organization focuses on five key areas for creating lasting change: Arts, Education, Environment, Government Innovation and Public Health. Bloomberg Philanthropies encompasses all of Michael R. Bloomberg's charitable activities, including his foundation and his personal giving.

For more information, please visit bloomberg.org or follow us on Facebook, Instagram, and Twitter @BloombergDotOrg.

H1_2016_02
October 21, 2016 Hearing
National Prevention Science Coalition to Improve Lives:
Diane Fishbein

An Automated Evidence-Based-Policy Clearinghouse for Researchers, Practitioners, Federal Agencies, and Policymakers: A Proposal to the New Evidence-Based Policymaking Commission

We are aware of your new Evidence-based Policymaking Commission, recently created by Congress and signed into law by President Obama. The bipartisan members who conceived of the need for this Commission are to be congratulated—a recognition of the need to infuse scientific evidence into the decisions of policy-makers is the first step to effectively designing policies that improve our lives while not wasting tax-payer money on unproven strategies.

Our understanding is that Commissioners have been charged with three general tasks: (1) to improve the federal data infrastructure while respecting privacy and security concerns; (2) to incorporate outcomes measurement, cost-benefit data, evaluation, randomized controlled trials (RCTs), and rigorous impact analysis into federal program design; and (3) to consider the value and nature of a clearinghouse that would facilitate access to data by various constituencies and enable the research community to judge what works and what does not.

The Commission will focus on ways to incentivize the rigorous evaluation of programs and policies that aim to reduce the problems associated with detrimental prevailing conditions and promote more healthful and productive outcomes. Until now, many programs we invest in do not possess stringent indicators of their effectiveness and, thus, there is no justification for their continuation.

There is a wealth of data already collected by the federal government and other agencies and organizations reflective of a broad range of phenomena, from physical health to juvenile and criminal justice to climate change. Existing data reserves are currently not well organized and thus an infrastructure is needed to increase the utilization of these data.

To facilitate the process of organizing and fully utilizing the data, we recommend a means to directly and expeditiously improve policy decisions. Our proposal is highly compatible with the law by incorporating federal agency and other data, as well as methodological components that will be readily accessible and understandable to those who stand to benefit. And we believe there will be widespread support from Congress, the White House and a number of organizations which have an interest in evidence-based policy-making.

We propose that the federal government (and expert contractors) develop an automated clearinghouse—perhaps called the "National Evidence-Based Toolkit for Intuitive Navigation" (NETIN)— that will provide comprehensive information regarding evidence-based programs and policies (EBPs) to users; e.g., researchers (who can populate the database), policy-makers (who need to know what to legislate and fund), and community organizations, practitioners and government agencies (that need to identify best practices). The data populating this toolkit will provide parameters needed to readily map available EBPs to existing needs, whether that be to identify best violence prevention practices for any given community or to determine which policies to fund to reduce poverty. Also needed is flexibility to include innovative and/or promising programs that have yet to be subjected to rigorous evaluation but are in the database denoted by their stage of development and need for further study (as per the #2 mandate above).

Parameters will be intuitively searchable and fields will be delineated by relevant characteristics; e.g., outcome of interest (e.g., diabetes, violence, contaminated water); setting (e.g., school, family, community, national); target population (e.g., special needs children, parents, community stakeholders, minorities); implementation protocols and frameworks (costs, timeline expectations to achieve impact, strategies to shift resources from existing to promising or evidence-supported approaches); pertinent literature and resources on assessing and utilizing research; cost-benefit analyses; and other information deemed helpful. The goal is to provide a comprehensive, one-stop resource that is more user-friendly and searchable on dimensions that are not currently available, providing an efficient and valid method to guide evidence-based policy-makers and others who might benefit from the resource.

The system would be both iterative and interactive; e.g., a search for a category of programs may elicit a notation about the need for extra diligence or a particular protocol for implementation. Or reference materials may be recommended if using certain interventions. At all stages of navigation, weblinks would lead to relevant information.

Finally, the Clearinghouse would provide a searchable methodology section for researchers who want to fill in gaps in the Clearinghouse database. There would be guidance on design, methods, statistical techniques, evaluation protocols, and strategies for translation.

We realize this will be a very large and complex undertaking that will take years to complete and will require continual updating. There will also be a need to establish criteria and thresholds for designating programs and policies as evidence-based, not only relative to the statistical findings from RCTs, but the population significance of those results (e.g., how broadly are effects achieved?). Fortunately, there are a number of existing registries that evaluate programs; they can be utilized and integrated as best seen fit. The Commission and their advisors will also want to make decisions about what policy areas to cover (from human behavior and health to security, the economy, and the environment). These objectives for a clearinghouse can be accomplished with sufficient funding and commitment, as well as by calling upon the expertise of evidence-based policy-making organizations, academics, researchers, current registry experts, federal government database keepers, implementation scientists, methodologists, computer scientists, and statisticians. And critical to this effort, to ensure its usability and utility, input must be sought from all potential users (e.g., community groups, policy-makers, agencies, foundations) working in concert with experts.

This proposal is reflective of what policy-makers, practitioners, stakeholders and others need to make informed, adequately justified, and effective decisions when identifying programs and policies that will serve communities and the nation. We have outlined a general roadmap for the creation of a clearinghouse—the Commission's 3rd consideration—with details to be fleshed out after thorough discussion and consultation. Our hope is that the Commission will include such a plan that will bring to fruition their charge to design a data infrastructure and incorporate results from existing and newly conducted studies. There is potential to greatly improve the operations of government, the services provided to citizens, and their financial impact.

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AMERICAN
EVALUATION
ASSOCIATION

H1_2016_03
October 21, 2016 Hearing
American Evaluation Association
Presenter: George Grob

Statement of

George F. Grob
Chair, Evaluation Policy Task Force
American Evaluation Association

For the Commission on Evidence-Based Policymaking

The Value and Methods of Evaluating
Government Programs Throughout Their Life Cycle

Rayburn House Office Building
Washington, D.C.
October 21, 2016

American Evaluation Statement
for the
Commission on Evidence-Based Policymaking

Thank you for the opportunity to discuss the important topic of evaluation of federal programs. I am a professional independent evaluator, formerly Director of Evaluation at the Office of Inspector General, Department of Health and Human Services and the Federal Housing Finance Agency. I am writing as Chair of the Evaluation Policy Task Force of the American Evaluation Association (AEA), the professional organization devoted to the application and exploration of evaluation in all its forms since 1986.

AEA has approximately 7,000 members across all 50 states, as well as 80 other countries. Members have gathered together from many interdisciplinary fields (such as public policy and administration, political science, economics, statistics, psychology, sociology, education, public health, demography, ethnology, etc.) to create a community of learning and practice over the past three decades. Members in academe have worked to develop, refine, and teach evaluation methods, while members in practice have served the evaluation needs of many organizations including agencies across the federal government. Members serve in many federal evaluation, policy, and inspector general offices, and at the Office of Management and Budget.

AEA has developed professional standards for the quality of studies and ethics for the multidisciplinary members of the field. Of particular interest today is AEA's paper: *An Evaluation Roadmap for a More Effective Government.* This document describes many types of evaluation that can address management requirements, as well as principles and practices for ensuring evaluation quality and usefulness, including methods, human resources, budgets, independence, transparency, and professional ethics in a government setting. For your convenience, I have attached a copy for your reference.

I focus here on three main topics: 1) the importance of evidence and the availability of data for government decision makers; 2) evaluation methods; and 3) evaluation in government settings.

Evidence and Data for Decision Makers
Government decision makers, including both the Congress and Executive Branch agencies, need appropriate evidence to make informed decisions to assess and improve the relevance, efficiency, and effectiveness of government programs, policies, and activities (hereafter "programs"). AEA applauds the work of the Commission to help Congress embed evaluation into program design and to ensure that quality data are available for evaluation.

Federal program design should include an appropriate evaluation framework to guide data collection and use over the life of a program. This includes data needed for rigorous impact evaluations as appropriate. Measures of a program's key processes and outcomes should be established while the program is being conceived and developed. In fact, taking time during the process of conceptualizing a new program to specifically define expected outcomes is most useful in establishing relevant metrics. Preliminary metrics should be put into place by the time program implementation begins, thus allowing key data to be collected to monitor program

implementation, determine progress, and set the stage for methodologically rigorous studies. It is vital for some study methods that data be collected prior to the program intervention.

We support the Commission in its efforts to consider *whether and how a clearinghouse for program and survey data should be established.* We encourage efforts to ensure that verifiable, reliable, and timely data are available to permit the objective evaluation of programs, including an assessment of assumptions and limitations in such evaluations.   Agencies should use evolving best practices for data security, and ensure that publicly available data are aggregated or otherwise stripped of all information that could be used to identify particular individuals or businesses.

The proposed clearinghouse could also serve as a repository for the evidence contained in evaluation reports, providing an archive capacity for the collection, dissemination, and preservation of knowledge and lessons learned from evaluation studies. This would provide an enhanced base for guiding future program design and management, which often requires a critical mass of knowledge to properly comprehend and address the complexity of program processes and influences. It would also be a great benefit for future meta-analyses of evaluation findings.

While recognizing the high value and strategic importance of large-scale archives and datasets, the availability of these existing data should not reduce the capacity to gather targeted data as needed to address important program evaluation questions.

Evaluation Methods
The Commission is charged with making *"recommendations on how best to incorporate outcomes measurement, institutionalize randomized controlled trials, and rigorous impact analysis into program design."* We believe that the key to such evaluation activities is for federal entities, (including Congress, as well as Executive Branch agencies and the White House Office of Management and Budget (OMB)), to identify the important evaluation questions that they need answered to effectively direct the future of Federal programs. Such questions could be effectively embedded in authorizing legislation or in congressional committee reports associated with legislative authorizations or renewals. Executive Branch agencies can do so in their budget documents and implementation plans. Evaluators, in consultation with other experts, can then identify which scientific methods are best suited to answer those questions. Specifically defining program activities and expected outcomes has proven very useful in choosing relevant evaluation questions about program operations and impact.

Such questions, and associated evaluations, are needed throughout the life cycle of programs, from their initial authorization through all phases of their implementation. For example, during early stages in the life of programs, key questions might center on the fidelity of their implementation with statutory requirements and on early implementation problems and successes. As the program matures, decision makers might want to establish metrics to track such features as enrollment of intended beneficiaries or establishment of required administrative systems and other infrastructures. Gradually, interest may shift to outputs, in terms of benefits provided and beneficiaries served. Ultimately, decision makers and citizens will want information about the impact of programs on people's lives, the economy, public health, safety,

or other factors or goals associated with the purpose of the programs. Throughout the life of the programs, government officials and taxpayers will want to know if funds are being misspent or wasted.

While interest will ultimately focus on program impact and value received for investments made, citizens and decision makers do not want to wait until a program has run its course and then determine whether it has been working. Along the way, they will want to know if implementation problems can be corrected and whether the programs can be improved.

All of these questions are important. But the methods for answering them can be complex. Evaluation professionals have a broad range of methods—based on research— from which to draw on to answer both impact and operational process questions. Rather than legislating, requiring, or overemphasizing any single specific method for impact analysis in federal guidance, AEA recommends that federal policy require that careful consideration be given to a range of evaluation methods that may be appropriate or feasible in any given circumstance.

Over the years, the evaluation field has developed an extensive array of analytic approaches and methods that can be applied and adapted to a wide variety of programs and circumstances, depending on the program's characteristics and implementation stage, the way the results will be used, and the kinds of decisions that need to be made. In designing evaluation studies it is important to recognize that every method has pros and cons and strengths and weaknesses that must be addressed in matching them to answer the specific questions, circumstances, and intended uses of results. There are real-life factors which can render designs infeasible, impractical, or inappropriate. To ensure adequate deployment, every study design must examine and address feasibility constraints, including resources (funding and time limits), conditions in the field, ethical considerations, stakeholder concerns, etc. All evaluation methods should be context-sensitive and have cultural relevance.

Agencies should not only focus on tools for evaluation inquiry, but foster evaluation thinking as well. High-stakes program decisions should be based on a preponderance of evidence developed using sound methods. Some programs may need a high level of credibility and precision in the portfolio of evidence upon which leaders base a decision. This may require multiple studies and methods as well as a combination of process and impact evaluations to assess and understand the effectiveness of an approach within the portfolio of evidence. A range of analytic methods may be needed, and often several methods—including quantitative and qualitative approaches— should be used simultaneously. Multiple methods can offset the shortcomings of any one method with the strengths of another.

In fact, some decisions about how to improve the reach and impact of a given program may not require a high level of precision or a large portfolio of evidence. Some evaluation approaches are particularly helpful in a program's early developmental stages, whereas others are more suited to ongoing and regularly implemented programs or to ex-post analysis of temporary programs upon their completion. The broader policy and decision-making context also can influence which approach is most appropriate. Sometimes information is needed quickly, requiring studies that can use existing data or rapid data-collection methods; at other times, more sophisticated long-term studies are required to understand fully the dynamics of program

administration and beneficiary behaviors. Moreover, different approaches can complement one another.

The opportunity to capitalize on early successes, identify implementation impediments, or make mid-course corrections is critical. So it is essential to conduct ongoing formative evaluation throughout the program's life cycle. For example, evaluation can address questions that arise during implementation of the program, such as the validity of assumptions that underlie program design, or challenges to implementation in the field. Early in the program's history, relatively simple information may be needed quickly (e.g., regarding obstacles to participation in the program). Evaluators should match the methodology to the questions at each stage of program development and to information needs, which may call for a range of methods over time, including targeted data collection that may not always include outcomes measurement.

Today we see considerable interest in impact analyses, including randomized controlled trials. No doubt these are valuable tools and have their place. But we wish to emphasize that they represent only some of the methods that can and should be applied, depending on the questions that need to be answered. They are not intrinsically better than other methods, except in those circumstances where they are most appropriate and feasible. An overarching focus on these methods to the exclusion of others will deprive decision makers of valuable insights about ways to improve program effectiveness and efficiency, and, when appropriate, whether to increase or diminish program funding.

Most federal evaluations need to go beyond estimating aggregate impacts to also addressing "what works for whom, and under what circumstances." If the data from evaluation studies are to be of most use in guiding evidence-based decision making, they need to be able to support conclusions about how program impacts vary across subgroups of those affected by the programs and also conclusions about the contexts in which the specific program activities are most effective.

Numerous examples are available of evaluations that have enhanced the effectiveness and impact of programs but that were conducted early in the program's life. One that comes to mind is the evaluation conducted by the Institute of Medicine during the first five year of the PEPFAR program. This was done at the request of Congress, embedded in the original authorizing statute. It provided feedback on implementation issues that was available to decision makers at the time of the program's first reauthorization. It is fair to speculate that this early feedback contributed to the impact of that program from that time forward, and in many ways was as or more impactful than studies performed in later years.

Other studies can affect programs and their impacts when performed several years into their implementation. One example is a series of evaluations and audits that identified serious problems of service quality, cost, and fraud within Medicare's home health program. Based on those studies, the Congress reformed the structure of the program, leading to savings of some forty plus billions of dollars and the abandonment of participation in the program by many high risk providers. These impacts were verified by independent reviews conducted by the Government Accountability Office. It is especially noteworthy that it was not a single impact study that led to these reforms, but rather by a body of work spanning several years.

Many other evaluation studies that lead to improved program impact and efficiency are documented on the websites of various Federal Offices of Inspectors General. They illustrate the value of using a body of work and mixed methods to assess both implementation and effectiveness of federal programs.

Evaluation Capacity in Government Settings
AEA believes that all federal entities should have the ability and should be encouraged (and in some cases, required) to evaluate programs. However, each agency or department should develop structures and plans for their evaluation functions that are best suited to their missions, organizational structures, stakeholders, environments, timing of and need for evidence in decision making, and available resources.

Because evaluation should serve as an essential core function in good governance, agencies should be required to apply the findings and conclusions of evaluations to program design, management, reform, expansion, or termination—ensuring that policy formulation will be more open, consultative, and evidence-informed. Agencies should, to the extent practical, conduct impact evaluations on pilot programs before attempting to expand or replicate them.

A framework for the planning and conduct of evaluations should also include:
   a. A public evaluation policy statement
   b. A sound procedure for establishing annual and multi-year evaluation agendas and timetables
   c. Consultation with appropriate congressional committees, OMB, and other external program stakeholders on their information needs
   d. A dissemination plan, preferably with public access
   e. Resources needed to support evaluation, and
   f. Plans regarding how the findings and conclusions of evaluations shall be considered in subsequent program design, program management, and decisions regarding program reform, expansion, or termination.

The organizational structure of evaluation efforts is also important. Thus, it is vital to ensure an appropriate mixture of independence and collaboration between the evaluators and program offices with regard to evaluation design, conduct, and reporting. Consultation is needed to ensure relevance, but independence is needed to ensure impartiality. Depending on the unique organizational structure of each agency, an independent central evaluation office could be responsible for: developing and promoting program evaluation expertise throughout an agency; planning, conducting or procuring evaluation studies; and ensuring appropriate follow-up of evaluation findings and recommendations.

Adequate staffing of evaluation units and support for professional development is also necessary if the Commission's work is to achieve the kind of benefits foreseen by Congress. To ensure that decision makers use the evidence produced in evaluation studies, agencies should invest in training those staff responsible for program design, implementation, and management regarding the proper conduct of evaluation and the use of findings in program decision making.

Summary

1. Government decision makers must have appropriate credible evidence to make informed decisions regarding the structure and operations of federal agencies and policies, and to maximize their effectiveness and efficiency.

2. For key decision points within programs, federal entities (including Congress, executive branch agencies, and OMB), should identify important evaluation questions. Evaluators, in consultation with program officials, should select methods best suited to answer those questions.

3. All federal entities should have the authority and resources to conduct evaluations, and should be encouraged (and in some cases, required) to evaluate various programs. However, each agency or department should develop structures and plans for those evaluation functions best suited to their mission, organizational structure, stakeholders, environment, and timing of and need for evidence in decision making.

4. Recognizing the importance of assessing program effectiveness, the opportunity to capitalize on early successes or to make mid-course corrections is also critical. So it is essential also to conduct ongoing formative evaluation throughout the program's life cycle.

5. The proposed Evidence Clearinghouse should serve as a repository for the evidence contained in evaluation reports and as an archive for the collection, dissemination, and preservation of knowledge and lessons learned from evaluation studies.

H1_2016_04
October 21, 2016 Hearing
New America
Presenter: Rachel Fishman

Rachel Fishman, Senior Policy Analyst at New America
Submission for the First Public Hearing of the Commission on Evidence-Based Policymaking (CEP)

Abstract: The US Department of Education puts out $130 Billion a year on federal financial aid to help students go to college, and billions more are spent by other federal agencies on higher education through tax credits, the GI Bill, and more. Despite having a tremendous amount of administrative data, policymakers, students, and families know shockingly little about how particular schools and programs are serving students due to a law banning the connecting of these data sets. In an era when college has never been more important nor more necessary, we believe this issue is one the Commission should address directly.

Oral and Written statement: Thank you for the opportunity to speak today about the better use of existing higher education data to support improved decision making by families and policymakers. My name is Rachel Fishman and I am a Senior Policy Analyst at New America in the Education Policy Program which uses original research and policy analysis to help solve the nation's critical education problems.

It's hard to open a newspaper or turn on the television these days without finding another report of the questionable value of college degrees. As anxiety over student debt and college costs reaches new heights, the public is growing increasingly uncertain about the value of a college education. The answer to the question "Is college worth it" is an unequivocal "yes." *On average*. But the real question is: In which program, at which college, at which price and for which students is it worth it?

Students, families, and taxpayers are spending unprecedented amounts on higher education, but remain largely in the dark about *how* to spend these precious dollars. And while colleges and universities spend hundreds of thousands of hours collecting and reporting data, they don't know how their students are faring compared with similar students at similar schools. Institutions of all types are subsidized with hundreds of billions of dollars a year in federal financial aid (not to mention billions more in tax credits, GI Benefits, Department of Labor funds, and more), but taxpayers don't know if these dollars are being wasted at diploma mills or poor-performing institutions. Policymakers have no sense of whether their reforms and investments are helping or hurting the families that most need the boost higher education can provide. At a time when higher education has never been as important or as expensive, it's unimaginable that we can't answer these critical questions.

Why can't we answer them? Because the federal government either doesn't have—or can't use—the right data. That's true, not because it is technically impossible, but because it is illegal. In 2008, Congress passed a law that banned the creation of a federal student unit record system to enable *existing* data systems to speak with one another and answer critical questions.

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The current hodgepodge of data systems cannot answer basic question like:

- How do part-time and older learners fair in the current system?
- What happens to students who transfer from particular colleges?
- How many—and which—students complete at particular colleges?
- Do students who get some of the more than $30 Billion spent annually on Pell Grants graduate?
- Are graduates able to find jobs that allow them to pay down their debts?

A system that uses already-collected administrative data would allow us to answer these questions.

Creating a Student Unit Record would not require the collection of additional student data, but would allow the connecting of existing data already held by a variety of federal and state agencies. Protecting these data at all points of the lifecycle is crucial, and it is worth considering housing such a system in the Department of Education's National Center for Education Statistics, which is classified as a statistical agency and therefore subject to stringent privacy and security requirements under the Privacy Act of 1974, the Education Sciences Reform Act of 2002 (ESRA), and the E-Government Act of 2002. We can also look to state level systems for best practices that could be implemented at the federal level.

We believe using existing administrative data to better understand the outcomes of students at our nation's colleges is exactly the type of critical policy issue the Commission was designed to address. We know we have just scratched the surface here today and we will provide much more detail about the existing administrative data sources as well as privacy and policy considerations in separate written comments. Thank you for your time and attention and I look forward to answering any questions.

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H1_2016_05
October 21, 2016 Hearing
Institute for Higher Education Policy
Presenter: Amanda Janice Roberson

Commission on Evidence-Based Policymaking—Public Hearing
Friday, October 21, 2016

Comments submitted by:
Amanda Janice Roberson, Research Analyst
Institute for Higher Education Policy

Abstract: The current postsecondary data infrastructure is fragmented and incapable of answering a number of important questions about how our students fare in the higher education system. Key stakeholders, including policymakers, institutions, researchers, and the students themselves, need better information about college access, progression, completion, and post-college outcomes. Given the federal government's substantial investment in postsecondary education, it is imperative that existing data – at the institutional, state, and federal levels – are leveraged to answer these critical questions. By fostering these data linkages and removing existing legal barriers, the Commission can create a system where data drive efforts to increase postsecondary success and close equity gaps.

Oral and Written Statement: Chairman Abraham, Co-Chair Haskins, and commissioners: thank you for the opportunity to address the Commission on Evidence-Based Policymaking on the importance of a cohesive postsecondary data infrastructure and its impact on evidence-based policymaking.

My name is Amanda Janice Roberson and I am a research analyst with the Institute for Higher Education Policy. IHEP is a nonpartisan, nonprofit organization committed to promoting access to and success in higher education for all students, with a focus on students who have been underserved by our postsecondary system. Based here in Washington, D.C., we believe that all people, regardless of background or circumstance, have the opportunity to reach their full potential by participating and succeeding in higher education.

In support of this goal, IHEP leads the Postsecondary Data Collaborative (PostsecData), a partnership between more than 35 organizations committed to the responsible use of high-quality postsecondary data to improve student outcomes. PostsecData partners represent a broad range of constituents, including groups that represent students, postsecondary institutions, the workforce community, and state and federal policy influencers and researchers.

Since 2014, IHEP has spearheaded research on which data should be collected, how metrics should be defined, and through which mechanisms our currently disconnected, duplicative, and incomplete data systems can work together to create a cohesive postsecondary data ecosystem. IHEP supports the mission of this Commission to analyze and make recommendations for streamlining federal data and data systems. We suggest the following actions to improve the landscape of postsecondary data for use by policymakers, students and families, institutions, and researchers.

- **Promote best practices in privacy and security for interconnected data systems.** Recommendations by the Commission for data linkages should address the importance of privacy, security, and confidentiality. As institutional practices and changing laws at the state level have led to confusion around when it is permissible to share or link data, policies and procedures from the Commission should be transparent, consult with data security experts to implement field-recognized best practices, and ensure that all publicly reported, aggregate data are stripped of personally identifiable information.

- **Leverage existing data to decrease burden, streamline reporting, and answer critical questions.** Data from sources like the U.S. Department of Education (which houses the National Student Loan Data System [NSLDS] and Integrated Postsecondary Education Data System [IPEDS]), Social Security Administration (SSA), the Department of Defense (DoD) and Department of Veterans Affairs (VA), among others, should be linked and leveraged to create a more complete picture of the higher education landscape. These sources provide valuable data on important subgroups of students who are often overlooked, including Pell grant recipients, student loan borrowers, and student veterans. If linked, these data would produce valuable information about enrollment and completion rates, and post-college employment and earnings. The Commission should consider ways to increase capacity and funding available to streamline processes and link data, as these are the primary challenges for state and local level data linkages.

- **Expand access to wage and labor market information for postsecondary outcomes.** In an era of scarce resources, the value of a postsecondary degree has never been greater, and post-college outcomes are increasingly important to policymakers and students. Now, data and metrics on employment and earnings are limited to voluntary initiatives, like College Measures, state dashboards, and the College Scorecard, revamped in September 2015. The Commission should explore datasets, like the Census Bureau's Longitudinal Employer Household Dynamics (LEHD) program or the National Directory of New Hires (NDNH), which both utilize state Unemployment Insurance (UI) wage records, or the Social Security Administration and Internal Revenue Service tax records, to understand the return on personal investment of students and families and federal investment in higher education.

- **Align definitions and metrics across federal laws.** Establishing common definitions for data metrics across federal laws like the Higher Education Act, the Workforce Innovation and Opportunity Act, and the Perkins Career and Technical Education Act could reduce administrative burden and create comparable outcomes across federal programs. Common and consistent metric definitions in the postsecondary ecosystem would make it much easier to link data between local, state, and federal sources and allow for accurate comparisons.

- **Recommend that Congress overturn the ban on a federal student-level data system.** The statutory ban on a federal student unit record system stifles the ability of policymakers to answer questions about our postsecondary system, limits the information available to consumers, and imposes unnecessary burden onto institutions. The Commission should recommend to overturn the ban and direct the U.S. Department of Education to engage with the higher education community to design and implement a student-level data system. This system would create a nationwide, inclusive data set that shows how students move through higher education and their post-college outcomes. This system would allow for disaggregation by key student characteristics, like Pell Grant receipt, race/ethnicity, and others, and illuminate evidence for future policymaking around closing equity gaps and the federal investment in higher education and postsecondary programming. Given the sensitive nature of record level data, the Commission should also recommend rigorous data privacy and security policies to govern this system.

Thank you for your time and the opportunity to provide a statement to the Commission. I look forward to answering any questions.

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H1_2016_06
October 21, 216 Hearing
Young Invincibles
Presenter: Tom Allison

Abstract

Policymakers are making decisions about higher education without crucial performance measurements. The Commission on Evidence-Based Policymaking represents a unique opportunity to address this problem, and collect and use the information students prioritize the most: how different colleges serve today's diverse student bodies, which majors and programs lead to specific occupations and industries, and whether students are repaying their student loans.

Statement

Thank you for the opportunity to speak before you today. My name is Tom Allison and I am the Deputy Director of Policy and Research for the Young Invincibles, a national research and advocacy organization working to expand the economic opportunities for young adults.

We know a lot about college and universities: how much schools charge for tuition and fees, how many students they enroll, and what types of programs or majors they offer.

We also know a lot about jobs and workforce trends: how many people are unemployed, how much money different types of workers make, which industries are growing and shrinking, and what skills employers are looking for in their workers.

The problem arises however, when attempting to draw connections between what we know about colleges and universities, and what we know about jobs and the workforce. Preventing us from connecting that link, is the Student Unit Record Ban, a single paragraph in the 2008 reauthorization of the Higher Education Opportunity Act, prohibiting the Department of Education from collecting and using student-level data. This is frustrating for today's students, who carry challenges and aspirations unique from previous generations, and the majority of which pursue higher education to improve their economic opportunities. Choosing where to go to school, what to study, and how to pay for it comes with the highest stakes of any decision in their life. Students and families need and deserve better insight to inform these decisions.

Moreover, without outcomes information on which schools and programs lead to jobs and ultimately financial security for their graduates, policymakers are left in the dark, unable to intelligently align funding with policy priorities. Colleges are also blind to students' trajectories after they leave campus and cannot adjust academic programs or systems to ensure students can land good jobs or pursue further education.

Over the course of two years, Young Invincibles conducted workshops, listening sessions, and roundtable discussions with current and aspiring college students across the country to better understand their priorities and values in attending and paying for college. We synthesized their voices in the Student Agenda for Data Reform and organizations representing over one million students currently support it. We will submit it in our written comments to the Commission, but in brief the agenda calls for overturning the student unit record ban, collecting more information about innovative platforms and alternatives to traditional higher education, and to protect the privacy and security of sensitive student information.

I'd like to dedicate the remainder of my time to read comments from a former student leader and recent graduate from the University of Nebraska, named Thien, whose story illustrates the need to improve our postsecondary infrastructure:

> As a 17-year-old, I did not have nearly enough knowledge of federal loan programs, extra college fees, trends in increasing tuition costs, or credit transferability to make the best possible decision when considering the investment I was making in paying for school. Some online tools can be helpful in estimating front-end costs, but they do little to educate on what life after graduation, or dropping out, would bring. It only takes a few clicks for a student to receive thousands of dollars in loans, but some can end up repaying them for decades afterward. Colleges need to be more transparent when advertising their costs by also informing prospective students on the costs that go along with repayment.
>
> We need more information on which schools best serve first generation and minority students like myself to feel comfortable and assured we'll find a college committed to our success. A college campus can be a very unfamiliar environment when you don't have family members to help navigate the strange new setting. Our institutions of higher education need to paint a more accurate picture of their minority communities, and the rate of success of those communities experience after graduation, including how prepared they are for the workforce. It's a great resource for some of us, who are not used to asking for help and may let ourselves fail out of college before mentioning anything to anyone, but it's frankly not enough.
>
> I can't speak for every low-income, first generation, minority college student in America, but I know these words resonate with a lot of my peers. While we know we need to take the reins of our own success, we need to be empowered to do so, and it is clear that there is a lot of information that needs to be made available before students can make a decision that will impact the rest of their lives and those close to them. What we need right now is better data, more of it, and to have it in a transparent and easily digestible form.

You can read the rest of Thien's story and others on our website. Thank you for your time.

H1_2016_07
October 21, 2016 Hearing
Workforce Data Quality Campaign
Presenter: Rachel Zinn

Critical Issues for the Commission on Evidence-Based Policymaking

Statement from Workforce Data Quality Campaign

The Commission on Evidence-Based Policymaking's examination of federal administrative and survey data provides an exceptional opportunity to address the management and use of data for measuring postsecondary education and workforce outcomes. The Commission's findings and impact could lead to more inclusive, aligned and market-relevant data systems to help educators, students, employers, workers and policymakers all make more informed decisions.

Workforce Data Quality Campaign (WDQC) is a non-profit initiative that promotes inclusive, aligned, and market-relevant education and workforce data. We engage hundreds of national experts, state officials, and workforce development advocates, encouraging the use of data to ensure that all of our nation's education and training programs are preparing students and workers to succeed in a changing economy. Given our mission, we are excited about the promise of the Commission's work, and are pleased to have the opportunity to share our recommendations.

Data collected and held by the government could help to answer a range of important postsecondary education and workforce questions, such as:

- Which skilled positions are employers having a difficult time filling, and what institutions might they look to for recruitment?
- Are recent college graduates finding jobs and earning good wages?
- How much do students borrow, and can they repay these loans?
- What types of education and training pathways are helping people succeed in careers?
- Which program models are most effective at helping target populations (e.g. ex-offenders, veterans, low-income individuals) gain skills and find stable employment?
- How can workers know which short-term credentials would likely raise their earning potential?
- What job search strategies are most effective, and for whom?

In some instances, surveys have been able to answer those questions over a limited time frame, but with great effort and expense. A growing number of state longitudinal data systems are linking administrative records to answer questions. However, geographical coverage is limited, so they cannot answer questions about students who leave the state, or compare outcomes across states. The federal government already collects data through numerous administrative sources, in addition to conducting regular surveys. With improved coordination, these data could be systematically shared and linked to answer those and other critical questions for generations to come.

Issues for Action

Strides have been made in recent years, but much information remains separated between agencies because of technological, cultural, and legal barriers. WDQC encourages the Commission to recommend the following actions in its final report:

1.) **Expand access to wage information**

The Commission should examine how the federal government can build on existing data collections and facilitate the linking of employment and earnings data across higher education and training programs.

Students and workers want to know which education and training programs will help improve their chances of having successful careers. Researchers need access to more detailed and comparable data on programs to analyze which pathways are working for students and workers. Agencies at all levels of government want to know the short- and long-term employment outcomes of those they have served.

Potential relevant data sources include the National Directory of New Hires and the Census Bureau, which contain Unemployment Insurance wage records submitted by states. The Internal Revenue Service and the Social Security Administration have individual tax records. In limited instances, agencies have found ways to use these data to show employment outcomes for programs, but the federal government needs to create efficient, strategic processes for managing employment data. The Commission should consider how a federal clearinghouse could streamline employment data collections and rationalize processes for access, while protecting privacy and enhancing security.

2.) **Improve information on postsecondary progress and outcomes**

The Commission should examine ways — such as establishing a federal student record system — to measure postsecondary student progress and more effectively and efficiently answer important consumer and policy research questions.

Stakeholders do not have access to comparable information at the program level, and in many cases, only students receiving financial aid; attending first-time, full-time; or those pursuing two or four year degrees are counted. These limitations exclude non-degree credentials that are growing in number and importance, as well as the transfer, part-time, and adult students who now outnumber "traditional" postsecondary students. The Department of Education's College Scorecard and planned changes in the Integrated Postsecondary Education Data System (IPEDS) reflect progress toward providing and linking data for analysis and consumer-friendly interfaces, but the information remains scattered and incomplete. Overturning legal prohibitions on federal collection of data on individuals involved in postsecondary education and training programs, and implementing a national student record system, would allow for building a more complete picture with lower administrative burden.

3.) **Provide more accessible labor market information**

The Commission should include in its examination how labor market information (LMI) might be better integrated to provide more comprehensive and clear information.

Having access to LMI (e.g. occupational projections) may strengthen a worker's ability to make decisions about employment and training, and help to improve the alignment of education and training programs with labor market demand. The Bureau of Labor Statistics, Census, and other statistical agencies could more effectively collaborate and incorporate additional information from federal programs to enhance data about employment, worker characteristics, and the job market. If the Commission examines LMI, it should coordinate with the newly established Workforce Information Advisory Council (WIAC), which reports to the Secretary of Labor.

4.) **Harmonize definitions and metrics across federal laws**

The Commission should explore how the federal government could implement similar definitions and metrics to streamline reporting and improve opportunities for data linkages between programs.

State agencies and service providers often face the burden of having to report on program results using different definitions and measures, which increases staff time and cost. Using common definitions and metrics from the Workforce Innovation and Opportunity Act (WIOA) for other programs as appropriate, such as those operating under the Perkins Career and Technical Education Act, would reduce administrative burden, make outcomes more comparable, and facilitate coordination across human capital programs.

5.) **Clarify privacy and security protections**

The Commission should account for best practices in privacy and security as it conducts its review.

Institutional practices and changing laws at various levels of government have often created confusion around what is possible and led to blockages in sharing and linking data, even when doing so is legal. Policies and procedures recommended by the Commission should be transparent, utilize evolving best practices for data security, and ensure that publicly available data are aggregated or otherwise stripped of all information that could be used to identify particular individuals or employers. As noted by presenters in an earlier Commission meeting on privacy and security issues, the Commission should respect varying viewpoints on privacy rights. In order to strike an appropriate balance between privacy concerns and optimal use of data to improve publically-funded programs, the Commission should ensure that federal policy accounts for emerging technologies that can help protect sensitive information.

As the Commission conducts its examination, we encourage the elevation and promotion of high-quality data sources that can be used to inform human capital development policy. We hope the Commission will focus on maximizing the use of data to enhance decision-making and continually improve education and training services that allow all Americans to contribute to a 21st Century economy.

H1_2016_08
October 21, 2016 Hearing
The Education Trust
Presenter: Tiffany Jones

The Education Trust

Closing the gaps in opportunity and
achievement, pre-k through college.

Commission on Evidence-Based Policymaking – Public Hearing
Friday, October 21, 2016

Comments submitted by:
Tiffany Jones, Director of Higher Education Policy
The Education Trust

Abstract: The availability of high-quality, robust data systems is essential to helping the public understand how students are faring at particular institutions, identifying equity gaps, and better incentivizing improvement and success. Having better information on the college participation and outcomes of all students also helps ensure that students can make the best postsecondary decisions for themselves, with the billions of dollars that the federal government annually invests in student aid. We believe that the most efficient and effective way to gather complete and more honest data is through a (modified) unit record system, and we support both an effort to eliminate the current student unit record ban and an effort to expand and improve the current data collections, including, for example, data on part-time students and transfers, and making Pell status transparent in the collections.

Oral and Written Statement:

Thank you for the opportunity to speak. My name is Tiffany Jones and I am the Director of Higher Education Policy at The Education Trust. Ed Trust is committed to advancing educational opportunities for all students, but especially low-income students and students of color. We aim to advance equity in higher education by encouraging policymakers and the public to hold campuses accountable for student outcomes and supporting improvement at campuses committed to serving low-income students and students of color.

Since the original Higher Education Act (HEA) was passed in 1965, the U.S. has made substantial progress in college access. College-going rates have climbed for students from all economic and racial groups. Yet despite this progress, low-income students today enroll in postsecondary education at rates lower than high-income students did in the mid-1970s. In every category of postsecondary education, low-income students and students of color are less likely than others to earn the degrees that they want and need, and far more likely to end up with debt and no degree.

Before disaggregation of data was required in K-12, we knew anecdotally that schools were not educating all groups of students well. But we did not know just how significant the inequities were, and we didn't know which schools were making progress and which weren't.

That, unfortunately, is where we still are in higher education — especially in regard to low-income students. We have some limited research on, for example, overall Pell graduation rates, but we don't currently know which institutions are serving these students well and which aren't. Pell graduation rate data will be incorporated into IPEDS in the coming years, but to date these data have not been included in annual IPEDS data collections. IPEDS also doesn't include data on part-time students or students who don't start in the fall or students who transfer in from another college.

If we have learned anything from past experience, it is this: that students who aren't measured don't count. If you want these students to count, and I know you do, you need to make the same shift to demanding better data that you have made in K-12.

We believe that the most efficient and effective way to have complete and more honest data is through a (modified) unit record system. The current ban on a federal student unit record system makes it impossible for federal policymakers to get a comprehensive picture of how students are moving through postsecondary education and attaining degrees and certificates. The commission should recommend the overturn of the unit record ban and the ban on a federal database of WIOA data, so that we can have a nationwide, inclusive data set to show how people are moving through a variety of education pathways.

Creating a student unit record system can begin by leveraging existing resources from the U.S. Department of Education (which houses the National Student Loan Data System and Integrated Postsecondary Education Data System), Social Security Administration, the Department of Defense and Department of Veterans Affairs, among others, to create a more complete picture of the higher education landscape. These sources provide valuable data on important subgroups of students who are often overlooked, including Pell Grant recipients, student loan borrowers, and student veterans. If linked, these data would produce valuable information about enrollment and completion rates, and post-college employment and earnings.

We also support an effort to expand and improve the current data collections, including, for example, data on part-time students and transfers, and making Pell status transparent in the collections.

Thank you for having this hearing and taking an important and critical step toward advancing the quality and availability of higher education data — specifically, a step that ensures better data that can be used to empower students, families, the public, advocates, and campuses as we aim to increase higher education equity and student success.

I look forward to answering any questions.

THE **PEW** CHARITABLE TRUSTS

H1_2016_10
October 21, 2016 Hearing
Pew-Macarthur Results First Initiative
Presenter: Sara Dube

October 14, 2016

Dear Members of the Commission on Evidence-Based Policymaking:

The Pew Charitable Trusts promotes transparency and accountability in government through the use of rational, reliable decision-making based on facts and evidence. We bring forth research that shows which policies, practices, and programs are effective. We have used this evidence-based approach to support successful home visiting programs for new mothers, evaluations of state-based tax incentives, and public safety programs to reduce recidivism. Our experience shows that helping policymakers enact evidence-based policies—those that improve states' fiscal health and enjoy broad bipartisan appeal—shifts policymakers' thinking about how to invest taxpayer dollars. As lawmakers see the benefits of evidence-based policymaking in one key policy area, they are more inclined to explore reforms in others.

One of our most successful evidence-based initiatives is the Pew-MacArthur Results First project, a joint effort of The Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation. A growing number of states and counties are partnering with the project to make evidence-informed decisions in eight policy areas. At present, we work with 22 states and seven counties to incorporate rigorous research into their policy and budget processes and use evidence to identify and invest in programs that achieve successful outcomes and positive returns on investment.

We applaud the federal Evidence-Based Policymaking Commission's work and share your commitment to bring data and evidence to the forefront of federal decision making. <u>We stand ready to be a resource as you consider how federal policies and practices could support state efforts to use data and research in the policymaking process—and offer our experiences at the state and county level that can inform federal level policies and practices.</u>

The Results First approach includes:
- Creating an inventory of currently funded programs;
- Assessing which programs are most likely to work, based on the best available research;
- Utilizing the customized Results First cost-benefit model to compare programs based on their expected return on investment; and
- Using the results to inform budget and policy choices.

New Mexico has used the Results First approach to compare the expected outcomes of adult criminal justice, child welfare, early education, and behavioral health programs. Using their Results First analysis, state leaders directed more than $100 million to evidence-based programs. In addition, the state is building a culture of evidence by incorporating evidence into their policymaking processes. For example, the Corrections Department adopted a policy that mandates that 70 percent of funds are directed to evidence-based programs. The department also adopted contracting standards that require vendors to document their use of evidence-based practices and monitor outcomes for programs that are developed in New Mexico to ensure that they meet the state's goals.

Mississippi passed legislation in 2014 establishing evidence standards for evaluating the state's corrections, health, education, and transportation programs. Using the Results First model, the state determined that a shock incarceration program—a paramilitary, boot-camp intervention—currently required by statute has been proven ineffective by national research. The legislature subsequently moved to eliminate the program in 2017, and is now developing an evidence-based alternative. In addition, the state, through its budget instructions, now requires executive agencies to justify funding for any new program by identifying evidence supporting the program's effectiveness. Mississippi policymakers expect to use this information to bolster the state's reinvigorated performance-based budget system.

New York State has used the Results First framework to target more than $50 million in state general funds over three years toward effective evidence-based alternatives to incarceration programs. Recipients of these funds are required to show that the programs are being implemented according to their original design—demonstrating fidelity—and that they are achieving expected outcomes. The state also leveraged its Results First analysis to compete for and win a $12 million "Pay for Success" grant from the U.S. Department of Labor.

Iowa's Results First analysis confirmed that the state's existing community-based domestic violence treatment program was not effective in reducing recidivism among domestic abusers. In fact, the model showed that the state was losing $3 for every $1 invested in the program. To improve outcomes for both victims and taxpayers, the department partnered with the University of Iowa to pilot an alternative program known as Achieving Change Through Value-Based Behavior, or ACTV. Preliminary results of the pilot demonstrated positive effects in reducing recidivism and the department subsequently began shifting funds away from the ineffective program and toward ACTV.

Colorado has completed program inventories and cost-benefit analyses in the adult criminal justice, juvenile justice, and child welfare policy areas, and is using their results to re-allocate funds in the FY 16-17 state budget. For example, the state will repurpose $1.9 million in FY 2016- 17 and $2.4 million in subsequent years for a new community corrections pilot project for at-risk offenders, centering the offender's treatment on cognitive behavioral therapy (an evidence-based program). The state has also dedicated $7.2 million (in FY 2016-17, with investments of $9.5 million each year after) to Communities That Care, a prevention system designed to reduce levels of adolescent delinquency and substance use through the selection and use of effective evidence-based preventive interventions tailored to a community's specific profile of risk and protection.

These are just a few of many examples of states using evidence to inform their budget and policy choices. We will submit additional examples and information in response to your request for comments via the Federal Register.

As you develop your recommendations, please consider the effect of federal policies on these state and local efforts, and feel free to contact us and our partners with any questions about the lessons learned at the state level and how they could be applied at the federal level.

Thank you,

Sara Dube
Director, Pew-MacArthur Results First Initiative
The Pew Charitable Trusts

H1_2016_10
October 21, 2016 Hearing
National Campaign to Prevent Teen and
Unplanned Pregnancy
Presenter: Kelleen Kaye

October 14, 2016

Dear Chair Katharine G. Abraham, Co-chair Ron Haskins, and members of the Commission:

On behalf of The National Campaign to Prevent Teen and Unplanned Pregnancy, thank you for the opportunity to submit a statement for the record for the Commission on Evidence-Based Policymaking (CEP) meeting to be held on October 21, 2016. The National Campaign, a research-based, nonpartisan, nonprofit organization was founded in 1996. We work to improve the lives and future prospects of children and families by ensuring that all children are born into families committed to and ready for the demanding task of raising the next generation by reducing unplanned pregnancy among teens and young adults. The National Campaign works towards three ultimate outcomes:

- Reduce the rate of teen pregnancy by 50% by 2026.
- Reduce the rate of unplanned pregnancy among women age 18-29 by 25% by 2026.
- Reduce the disparities in teen pregnancy and unplanned pregnancy rates among racial/ethnic and socioeconomic groups by 50% by 2026.

Ensuring that young people have access to high quality, evidence-based teen pregnancy prevention education is one critical element in helping more young people delay pregnancy and parenting.

Given our long-standing commitment to research, evidence and evaluation, we applaud the establishment of the Commission and appreciate the important issues it is tackling. In this statement, we offer feedback about several of the duties the Commission is tasked with, along with information about two tiered evidence-based programs—the Personal Responsibility Education Program (PREP) and the Teen Pregnancy Prevention (TPP) Program—which we hope will be helpful as the Commission goes about its important work.

The Commission poses several important questions with respect to data infrastructure and access, including a request for examples of best practices related to linking local, state and federal data. Not surprisingly, this type of endeavor raises many technological, ethical, and legal challenges, particularly as they relate to the balance between data access and privacy. One example that may be helpful to consider is the Longitudinal-Employer Household Dynamics (LEHD) program. We highlight this program for its ability to successfully navigate challenges associated with partnership formation, privacy protection, and data access while producing data that have greatly impacted policy.

Similarly, the Commission poses several questions related to the potential benefits and challenges of developing a clearinghouse for administrative and survey data. While The Campaign strongly supports greater access to administrative and survey data, and a

clearinghouse would be beneficial in theory, we believe such an effort would likely fall short of its goals and would be difficult to maintain. It is particularly difficult to imagine a single clearinghouse that gathered data and evidence across all policy domains in a way that adequately captured the complexities of these data and the programs they reflect. Rather, we believe those resources would be better committed to helping agencies maintain and enhance the data access they already have in place. In our experience, as these agencies try to meet growing data collection costs with fixed or even diminishing budgets, the availability of policy relevant data has been shrinking in critical ways. Key questions have been cut from surveys and online access to data has been curtailed. This is particularly true as it pertains to tabulating results for states or localities. For example, one can no longer use the online vital statistics data to look at key policy questions like variation in Medicaid or WIC participation at the state level. It is also the case that some particularly rich data, such as the Medicaid Max files, are not available as de-identified files, thus making them difficult to obtain and underutilized. There are likely similar limitations in other policy domains as well. We believe that with relatively modest investments and vocal champions, data access could be greatly expanded.

We also would like to comment on the Commission's interest in how data and findings from evaluations can best be used to improve policies and programs. We offer two examples of tiered evidence grant making from the US Department of Health and Human Services (HHS) that use evaluation results to continually improve those programs.

The TPP Program and PREP, like the Maternal, Infant and Early Childhood Home Visiting program, have been recognized as pioneering examples of tiered evidence-based policymaking,[i] and represent an important contribution to building a body of evidence of what works. They include high quality implementation, evaluation, innovation, and learning from results. The majority of funding from the TPP Program and PREP goes toward replicating program models that have been demonstrated to change behavior using well recognized high standards of evidence. A smaller portion of funding is reserved for research and demonstration projects to develop, replicate, refine, and test additional models and innovative strategies. This ensures that the menu of effective approaches to reducing teen pregnancy will continue to grow and be refined.

TPP Program and PREP grantees can choose from a list of effective models that have been identified through HHS' ongoing systematic review of the teen pregnancy prevention research literature. Since 2009, HHS has sponsored this review of the literature to help identify models with evidence of effectiveness in reducing teen pregnancy, sexually transmitted infections (STIs), and associated sexual risk behaviors. The review, conducted by Mathematica Policy Research, looked at hundreds of evaluations and initially identified 28 models that met Tier 1 criteria. That is, they must have been evaluated using a randomized controlled trial or quasi-experimental design, demonstrate changes in behavior (not just knowledge or behavioral intent), and results must be published in a peer-reviewed journal. The evidence review is updated periodically to capture the latest evaluation studies, and now includes 44 models.[ii] The wide range of models on the HHS list of evidence-based programs gives grantees the flexibility to choose an effective approach that reflects their needs, population, and values, recognizing that what people in New York City may choose for high school age teens might be different from what people in Mississippi choose for middle school youth.

The TPP Program is a discretionary program administered by the Office of Adolescent Health (OAH) that was originally funded in FY 2010 at $110 million. It supported an initial cohort of 102 grants for a five-year period. Funded at $101 million for FY 2016, the TPP Program currently supports 84 competitive grants to a broad range of organizations and agencies serving youth in 39 states and the Marshall Islands. The grantees focus intensely on communities with the highest teen birth rates and the most at-risk youth. These five-year grants were awarded in FY 2015 and are contingent on continued appropriations. As noted above, approximately 75% of the grant funds are used to replicate program models that have already been shown through careful evaluation to change teen behavior (Tier 1), and approximately 25% of the funds support research and demonstration projects to develop, replicate, refine, and test additional models and innovative strategies to prevent teen pregnancy (Tier 2).

PREP, established in FY 2010, continues to be funded at $75 million in mandatory funding annually through FY 2017. Administered by the Administration on Children and Families (ACF), PREP supports states, communities, and tribes to educate adolescents on both abstinence and contraception to prevent pregnancy and STIs, and on other adulthood preparation topics such as healthy relationships, communication with parents, and financial literacy. PREP focuses on youth at greatest risk of teen pregnancy and geographic areas with high teen birth rates. For example, 34% of grantees targeted youth in foster care and 74% target youth in high need areas.[iii] Most of the PREP funding ($58 million) supports grants to states, territories, and tribes and emphasizes the use of evidence-based programs. Indeed, more than 95% of youth served by the state grants received one of the evidence-based programs from the HHS list referenced above.[iv] An additional $10 million supports competitive grants to public and private entities to develop, replicate, refine, and evaluate innovative strategies to reduce teen pregnancy and repeat pregnancies among youth up to age 21. These grants are subject to rigorous evaluation and reflect a "Tier 2" approach that supports innovation, fills gaps in existing programs for underserved populations, and expands knowledge about what works.

Both programs have invested heavily in the highest standards of evaluation and learning, as well as in innovation. OAH funded 41 rigorous evaluations during the first round of TPP Program grants that ran from 2010-2014.[v] The recently released findings—90% of which were from randomized control trials—indicate that four of the Tier 1 programs were found effective in changing behavior in additional settings and new populations. Among the Tier 2 grantees, 8 new, innovative models were found to be effective. Overall, these evaluations help build a body of evidence about where, when, and with whom specific models are most effective, and have expanded the menu of effective program models from which communities can choose. The results, along with implementation lessons, also help guide the second round of TPP Program grantees, and the many communities that look to the HHS list of evidence-based programs for guidance on what approaches will work best for them. Many of these findings and valuable implementation lessons were recently published in a special supplement of the *American Journal of Public Health*.[vi] PREP grantees have also been subjected to rigorous evaluations through several different federally sponsored studies, and several studies have already been added to the HHS evidence review.

The commitment to evidence-based investments and innovation in the area of teen pregnancy prevention has been pivotal in changing the landscape. Before these two programs began, there

were no federal investments dedicated to evidence-based teen pregnancy prevention programs; research in this area had primarily come from private investments, with few resources available to replicate or further evaluate the existing models.

The National Campaign also offers PREP and the TPP program as two examples where evaluation—specifically randomized control trials and quasi-experimental designs— have been successfully incorporated into the program designs. These are two of the few government programs that use evidence and evaluation criteria throughout the grant life cycle.[vii] In fact, only about $1 out of every $100 spent on federal programs is backed by any evidence that the money is being spent wisely.

We believe rigorous evaluations have been successfully implemented for a few reasons. Importantly, the legislation for both programs specifies that some portion of funds should be used for evaluation. Program requirements also signify that evaluations are a priority. For instance, PREP grantees must participate in a federally-led evaluation, if chosen, and the "Tier 2" innovation grantees are required to conduct their own rigorous evaluations, unless selected to be part of a federally-led evaluation. All TPP Program grantees are required to conduct some program evaluation, with a subset selected for rigorous impact evaluation.[viii] In addition, there are several federally-led evaluation studies that include large, multi-state, rigorous evaluations conducted under contract to OAH.[ix] Besides rigorous evaluations, mandatory reporting of performance measures is another way that OAH and ACF ensure grant projects are making sufficient progress toward their stated missions and that there is continuous quality improvement.

Of course, providing support for grantees is another vital component to ensuring evaluations are successful. From review of initial evaluation designs to preparation of the final evaluation reports, TPP Program and PREP grantees received ongoing evaluation training and technical assistance support to ensure rigorous methods and reporting.[x, xi] In addition, it is essential to have a commitment to evaluation and learning from program leadership and adequate federal staff capacity to carry out that commitment. Leadership at OAH and at ACF demonstrated such commitment, built staff capacity, and worked closely with evaluation experts at the ACF Office of Planning, Research and Evaluation (OPRE) and the Office of the Assistant Secretary for Planning and Evaluation (ASPE).

In closing, thank you for considering our input for the Commission for Evidence-Based Policymaking. If you have any questions or need additional information, please contact me at 202-478-8512 or kkaye@thenc.org.

Sincerely,

Kelleen Kaye
Vice President, Research and
Evaluation

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[i] Results for America. (2015). *Invest in What Works Fact Sheet: Federal Evidence-Based Innovation Programs.* Washington, DC: Author. Retrieved October 12, 2016 from http://results4america.org/policy-hub/invest-works-

fact-sheet-federal-evidence-based-innovation-programs/. Also, Haskins, R. (2014). *Show Me The Evidence*. Washington, DC: Brookings Institution Press.

ii Lugo-Gil, J., Lee, A., Vohra, D., Adamek, K., Lacoe, J., & Goesling, B. (2016). *Updated findings from the HHS Teen Pregnancy Prevention Evidence Review: July 2014 through August 2015*. Washington, DC: Mathematica Policy Research. Retrieved October 12, 2016 from http://tppevidencereview.aspe.hhs.gov/pdfs/Summary_of_findings_2015.pdf.

iii Administration for Children and Families/Family and Youth Services Bureau. (2015). *Adolescent Pregnancy Prevention Program Fact Sheet.* Washington, DC. Author. Retrieved October 12, 2016 from www.acf.hhs.gov/programs/fysb/resource/app-fact-sheet.

iv Administration for Children and Families/Family and Youth Services Bureau. (2015). *Personal Responsibility Education Program: How States Planned and Implemented Adolescent Pregnancy Prevention Programs: State PREP Performance Measures of Structure, Cost, and Support for Implementation.* Washington, DC: Author. Retrieved October 10, 2016 from www.acf.hhs.gov/sites/default/files/fysb/prep_pm_brief_20151216.pdf.

v U.S. Department of Health and Human Services, Office of Adolescent Health. (2016). Results from the first round of TPP grantees. Retrieved October 12, 2016 from www.hhs.gov/ash/oah/oah-initiatives/tpp_program/cohorts-fy-2010-2014.html.

vi Morabia, A. (Ed.). (2016). Building the Evidence to Prevent Adolescent Pregnancy: Office of Adolescent Health Impact Studies (2010-2015) [Special issue]. *American Journal of Public Health, 106*(S1). Retrieved October 12, 2016 from http://ajph.aphapublications.org/toc/ajph/106/S1.

vii A recent GAO report includes TPP in its review of five tiered evidence grant programs, noting evidence is used throughout, including for assessing the evidence base and identifying evidence-based approaches, implementing evidence-based approaches with fidelity, conducting rigorous independent evaluations, and disseminating evaluation results.

viii U.S. Department of Health and Human Services/Office of Adolescent Health. (2016). TPP Evaluation and Performance Measurement. Retrieved October 10, 2016 from http://www.hhs.gov/ash/oah/oah-initiatives/evaluation/grantee-led-evaluation/grantees-2010-2014.html.

ix http://www.hhs.gov/ash/oah/oah-initiatives/evaluation/federal-led-evaluation/index.html

x http://www.hhs.gov/ash/oah/oah-initiatives/evaluation/ta.html.

xi Goerlich Zief, S., Knab, J., & Cole, RP. (2016) A Framework for Evaluation Technical Assistance (2016). *American Journal of Public Health, 106*(S1): S22–S24. Retrieved October 10, 2016 from http://ajph.aphapublications.org/doi/full/10.2105/AJPH.2016.303365.

From Data to Action:
Achieving Results People Care About Most

PRESENTATION TO THE

COMMISSION ON EVIDENCE-BASED POLICYMAKING

QUENTIN WILSON

WASHINGTON, DC

OCTOBER 21, 2016

Breaking Good

The effective use of good data is vital to achieving the results about which people care most.

The CEP environment includes a global consensus, bi-partisan support, high ambitions, new resources and recent successes in the use of data, analysis and evidence to improve public program performance.

The Commission agenda on data access and protection can help broaden and deepen the use of data and analysis for that purpose.

The value of this agenda can be increased and sustained to simultaneously take two big steps:

- Providing information and other resources to help speed the improvement process; and
- Linking programs performance to the high-level results about which people care most.

Global Consensus and Advancement: Using Data to Achieve Better Results

- ◦ Tim Berners-Lee, Founder of the World Wide Web: The Next Web
- ◦ UN Guidelines on Open Government Data
- ◦ White House Executive Order and 9/28/16 Open Data Innovation Summit
- ◦ Commission on Evidence-Based Policymaking
- ◦ Results Washington
- ◦ Maryland StateStat
- ◦ Baltimore OutcomeStat

You've Got a Friend:
Emerging Research, Advocacy and
Support Resources

Governing Institute

Living Cities

Results for America

USC Civic Data

Pew-McArthur Results First Initiative and Clearinghouse

Bloomberg Philanthropies What Works Cities

Harvard Data-Smart City Solutions

Hewlett Foundation Effective Philanthropy Group

Evidence-Based Policymaking Collaborative

Postsecondary Education Data Collaborative

Bill & Melinda Gates Foundation

Institute for Higher Education Policy

Caring about Data:
Making a Difference on Results that Matters Most

Key Result Area	Data-Based Initiatives
Priority Outcomes	
Education	
College Completion	**Career & College Clubs**
Child Development	First Five/Parents as Teachers
Public Safety	
Violent Crime	Gang intervention
Worker Safety	Highway construction process
Health	
Substance Abuse Prevention	SAMHSA E-B Program Registry

College Completion:
Career & College Clubs

The Career & College Clubs curriculum uses peer-to-peer learning to empower middle school students to succeed in high school and beyond.

48% increase in positive responses to the statement:

I KNOW HOW TO GET the college information I need.

47% increase in positive responses to the statement:

I KNOW THE COLLEGE application process.

41% increase in positive responses to the statement:

I KNOW WHAT COURSES and tests I need to take to be eligible for admission to a 4-year college or university.

9% increase in positive responses to the statement:

I KNOW WHAT CAREER I want to pursue, and what I need to study in college to achieve my career goal.

Data Making a Difference - II

Key Result Area	Data-Based Initiatives
Priority Outcomes	
Economic Prosperity	
Strong Neighborhoods	Blight Reduction Housing
Employment Opportunity	**Pathways to Careers**
Effective Government	Santa Monica FD Missouri Dept. of Revenue
Energy and the Environment	

Economic Prosperity: Bridgespan's Billion Dollar Bet on Pathways to Careers

Data-based research-driven proposal

Potential investments in six result areas "emphasized the need to better track and manage data."

Results measured by Return on Investment (ROI) model. (10X)

Aspirational individual outcome
Achievement of a postsecondary credential with labor market value

Maximum potential reach	×	Proportion achieving impact	×	Direct economic impact	=	Return on investment
2.2 Million adults will be in regional areas affected by investments over the course of five years		3% to 6% of adults in regional areas affected will be able to achieve a credential based on expanded pathways		$111,000 Net present value (NPV) of improved lifetime earnings		$7.3B to $14.7B in potential economic benefit for individuals and families

State Initiatives:
California Performance Excellence Resources

- California Data Collaborative
- California Evidence-Based Clearinghouse
- California Open Justice initiative
- Open Data tech firms
- Local government leaders

Setting the Stage for Faster, Better Results: What's Needed Now

Create a repository of consensus outcomes and measures, and resources for improvement.

Encourage leadership and collaboration among agencies, levels of governments and sectors.

Build a culture of support for the use of data and outcomes that matter, not punishment and misguided "accountability."

Develop more accessible, commonly accepted and usable data.
- "80% of data lives in forms and places our teams and systems can't easily process."- IBM Watson Team
- World Wide Web founder Tim Berners-Lee: Linked Data

Next Steps: Using Data and Analysis for Faster, Better Results People Care About

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Prioritize organizational goals, outcomes and measures from the inventory of options.

- Utilize data and information about the current, projected and comparative performance on these outcomes.
- Involve the public, elected officials, researchers, advocates and practitioners in the prioritization process.

Speed effective implementation with access and use of resources.

- Policy and program research and advocacy
- Promising practices
- Technical assistance and training

Integrate performance assessment and review with strategic planning.

For More Information:

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American Principles Project

Abstract: We urge the Commission to resist calls to repeal the statutory prohibition on the development, implementation, or maintenance of a federal student unit-record system. Such a system would curtail liberty interests of the individual, would invite the collection and use of ever-more data, and would fundamentally alter the relationship between the individual and government in a way that is incompatible with our constitutional republic.

Statement by Emmett J. McGroarty, JD
Before the Commission on Evidence-Based Policymaking

The Commission on Evidence-Based Policymaking was created to pursue a laudable goal: To improve analysis of the effectiveness of federal programs.[1] But when such a pursuit is used to justify collecting, conglomerating, and tracking massive amounts of Americans' personal data, as is certainly true in the realm of education, it's necessary to examine the dangers and the tradeoffs. American Principles Project (APP) believes that such activities suppress the liberties of the people and pervert the relationship between the people and government. We urge the Commission to reject calls to establish a federal student unit-record system and to engage in such Orwellian activity.

Section 134 of the Higher Education Act wisely prohibits the development, implementation, or maintenance of a federal student unit-record system (one that would allow the government to collect personally identifiable information (PII) on individual higher-education students and link education data to workforce data).[2] Recently, though, an orchestrated demand for repeal of this prohibition has been swelling.[3]

According to well-funded organizations[4] with a vested interest in accessing that data for their own purposes, the federal government suffers from data-deprivation. Think how much more efficiently our nation could operate, and how much more the government could help people run their own lives, if it maintained a centralized repository tracking almost every conceivable data point about every citizen – where he attended school, what courses he took, what grades he earned, what extracurricular record (good or bad) he compiled, what jobs he applied for, what jobs he got, what salary he made, whether he was promoted, what salary he earned in his new position, whether he lost his job and why, whether he joined the military, what sort of

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[1] David B. Muhlhausen, "A Commission for Evidence-Based Policymaking: A Step in the Right Direction," Heritage.org (March 9, 2015), *available at* http://www.heritage.org/research/reports/2015/03/a-commission-on-evidence-based-policymaking-a-step-in-the-right-direction.

[2] 20 U.S.C. sec. 1001 *et seq., available at* http://naicu.edu/docLib/20081030_HEA101-studentunit.pdf.

[3] *See* Libby Nelson, "Idea Whose Time Has Come?" *Inside Higher Education* (May 13, 2013), *available at* https://www.insidehighered.com/news/2013/05/13/political-winds-shift-federal-unit-records-database-how-much.

[4] Kelly Field, "Rescind Ban on Federal Unit-Record System to Track Students, Report Says," The Chronicle of Higher Education (March 11, 2014), *available at* http://www.chronicle.com/article/Rescind-Ban-on-Federal/145279/.

military record he established, whether he was arrested and for what, whether he went to jail, and on and on *ad infinitum.*

This is not a description of a free and open United States of America. This is a description of a totalitarian society that keeps tabs on its own citizens – for their own good, of course. It's also a description of what would inevitably happen with the establishment of a student unit-record system, all in the name of "better consumer information," "accountability," and "transparency."

What's wrong with a federal unit-tracking system?

First, it would compile students' personally identifiable information (PII) without their consent – or even their knowledge that their data is being collected and disclosed. It's one thing to collect data from a student who voluntarily (which of course presumes actual notice of the program) participates in a government program and understands that participation will expose his PII to program administrators; it's quite another to forcibly suck every individual into a data-collection system simply because he enrolled in an institution of higher education. Telling that student that he must hand over his personal data to promote a greater good as defined by bureaucrats and lobbyists – or even worse, just dragooning him without telling him anything – is simply un-American.

Second, the purposes of the proposed system would be so open-ended that the repository is certain to be expanded over time to centralize data far beyond collegiate and employment data. In the creative bureaucratic mind, literally everything can be linked to education. So why stop with employment data? Why not see how one's education affects his participation in the military? Or his health? Or his criminality? Or his housing patterns? Or the number of children he has? Or whether he purchases a gun? Or his political activity? Inquiring bureaucrats want to know, and every question can be justified by citing "better consumer information."

And will this dossier created on every citizen become permanent? Presumably so. If the goal of providing maximum consumer information is to be achieved, both historical and current data – constantly updated and expanded – must be compiled and preserved.

Perhaps this expansion won't happen. Perhaps the federal government, in stark contrast to its behavior over the last 100 years, will stay within its boundaries. But reality-based Americans know the government will push the envelope as far as it possibly can, as it always does. And they know that giving that government access to such a treasure trove of data is dangerous to privacy and to individual liberty.

Third, the idea that this massive repository of PII will be protected against unauthorized access and data breaches is quite simply delusional. Less than a year ago, a hearing of the House Committee on Government Oversight and Reform[5] revealed the shocking lack of student-data

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[5] U.S. Department of Education: Information Security Review" (Nov. 17, 2015), *available at* https://oversight.house.gov/hearing/u-s-department-of-education-information-security-review/.

security throughout the U.S. Department of Education (USED). The problems encompass both lax controls over the people allowed access to sensitive data, as well as outdated technology and inadequate security to prevent unauthorized access.

USED's system contains over 139 million Social Security numbers (largely through its office of Financial Student Aid), along with sensitive borrower information about students and families contained in the National Student Loan Database. The findings of the Office of the Inspector General (OIG) and the General Accounting Office were disturbing:

- Of the 97,000 account/users with access to this information (government employees and contractors), fewer than 20 percent have undergone a background check to receive a security clearance.
- The security mechanisms protecting that data are grossly inadequate. As one OIG witness testified, "During our testing . . . OIG testers were able to gain full access to the Department's network and our access went undetected by Dell [the vendor] and the Department's Office of the Chief Information Officer."
- USED ignored repeated warnings from OIG that its information systems are vulnerable to security threats.

That the federal government should now consider ballooning the sensitive data contained in these insecure systems is at best misguided and reckless.

Even if the data systems were secure, the Obama administration's gutting of the Family Educational Rights and Privacy Act (FERPA) means that government education officials (federal, state, and local) now have enormous leeway to disclose PII on individual students without their consent. Pursuant to the recent FERPA regulations, these officials may share private PII with other government agencies, nonprofit entities, corporations, researchers, and literally anyone on the planet as long as the disclosure can be characterized as an audit or evaluation of a (broadly defined) "education program."[6]

Will the new conglomeration of student data be fair game for disclosure under these regulations? The danger is too real to dismiss.

The philosophical problem with a federal student unit-record system is that it treats free-born American citizens as objects of research and study. It assumes that the goal of benefitting others in society, in vague and theoretical ways, authorizes the powerful federal government to collect and disseminate millions of data points on individuals – without their consent. This fundamentally changes the relationship between the individual and government. Collecting and holding massive amounts of data about an individual has an intimidating effect on the individual—even if the data is never used. This is even more so the case when the collector has

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[6] Letter from American Association of Collegiate Registrars and Admissions Officers to Regina Miles of U.S. Dept. of Education (May 23, 2011), *available at* https://aacrao-web.s3.amazonaws.com/migrated/FERPA-AACRAO-Comments.sflb.ashx_520501ad842930.77008351.ashx.

the force of the law behind it. Our republic rests on the idea that the citizen will direct government. That cannot happen where government sits in a position of intimidation over the individual.

Submitted by:

Emmett J. McGroarty, Esq.
Senior Fellow
American Principles Project

H1_2016_13
October 21, 2016 Hearing
Veterans Education Success
American Institutes for Resarch
Presenters: Carrie Wofford and Mark Schneider

Commission on Evidenced-Based Policymaking
Submission by
Carrie Wofford, President, Veterans Education Success &
Mark Schneider, Vice President, American Institutes for Research

The Need to Share and Link Federal Data on the Post-9/11 GI Bill

We urge the Evidence Based Policymaking Commission to take steps to end the siloization of federal data and ensure that federal agencies share data.

The Post-9/11 GI Bill provides an important example of the detrimental impact of siloed federal data.

Why it Matters:
Historians and economists frequently credit the original GI Bill with helping to build America's Middle Class following WWII. After the 9/11 terror attacks on American soil, a new GI Bill was enacted to provide the current generation of veterans with their ticket to the American dream, helping 1.5 million veterans at a cost to taxpayers of $61 billion since August of 2009. The goal is to assist veterans in the transition to a successful civilian career.

In order to best serve veterans and the federal taxpayer investment, government officials, higher education leaders, and policymakers need to know how the GI Bill is succeeding and "what works" under the GI Bill.

Such an assessment is impossible because federal data regarding student outcomes and occupational outcomes for veterans remain siloed across several federal agencies.

At this time, nobody in America knows the student veteran graduation rate, debt rate, default rate, or whether the Post-9/11 GI Bill is succeeding in supporting veterans' transition to civilian occupational and income success. Little is known about veterans' educational attainment, debt or default, because the U.S. Education Department (ED) does not know which students are veterans and the U.S. Department of Veterans Affairs (VA) does not track student outcomes. Although ED formerly tracked veterans in its database, it stopped doing so in 2009, when it introduced a skip-pattern in its FAFSA form, such that most veterans never seeing the question about military service. Unfortunately, this change at ED was launched the exact same year (2009) that the Post-9/11 GI Bill went into effect. A 2014 U.S. Senate Committee reported that for-profit colleges dominate the Post-9/11 GI Bill and generally provide poor outcomes for students overall, while costing taxpayers twice as much per veteran as public colleges and universities, but student outcomes specific to veterans was unknown. Indeed, reporters asked the Senate Committee what the student veteran graduation rate was, and this question was

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impossible to answer because the data needed to answer this basic question is held in separate agencies.[1]

In addition, occupation and income data from IRS and Census is not linked to either VA or ED data.

<u>What Data-Linking or Sharing Could Achieve:</u>
If data from VA and ED were shared or cross-walked and if occupational and income data from IRS or Census were added, the resulting combined data set would provide solid answers on the student veteran graduation rate, debt and default rates, job placement rate, and income. The shared data would:

Help veterans make an informed college choice as they decide where to use their GI Bill by arming them with data about veterans' probability of graduation and likely earnings trajectory from each college (and each program). VA's GI Bill College Comparison Tool is currently the best source of information for veterans choosing a college, but it does not provide veteran-specific data. If federal data were shared, VA's GI Bill College Comparison Tool could be as robust as ED's College Scorecard. The College Scorecard was possible only because federal agencies shared data. The College Scorecard provides students with important data-points about student graduation (specifically, the graduation rate within 150% of expected time to completion for first-time, full-time students) and salary after attending (specifically, the median earnings of former students who received federal financial aid 10 years after entering the school). It should be noted that much of ED's data is limited to first-time, full-time students, which is an outdated limitation and one the Commission should urge ED to change.

Help Congress and policymakers improve regulation by providing data on Post-9/11 GI Bill students and their debt and occupational rates. Currently, Congress and policymakers have no data on the student outcomes, nor on the occupational and income outcomes, of educational paths under the Post-9/11 GI Bill. Understanding a return on investment would assist

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[1] Private efforts have tried to determine the student veteran graduation rate, but it is impossible without VA and ED actually sharing data. The largest private effort (by Student Veterans of America, known as the 2014 "Million Records Project" and its 2016 update "NVEST") undertook to match VA data on Post-9/11 GI Bill use against data from the National Student Clearinghouse to try to determine the student veteran graduation rate for a subset of GI Bill users. But the Clearinghouse data is limited to degree-granting schools (and covers most, but not all veterans at degree-granting schools), so it provides only a limited answer. Most notably, Clearinghouse does not track students at certificate, non-degree programs, nor vocational/technical programs (both of which are covered under the GI Bill). VA estimates that nearly half of the GI Bill is spent at non-degree schools, meaning that the Clearinghouse data and the "Million Records Project" are missing half of GI Bill students. Specifically, VA reports that among Post-9/11 GI Bill students starting their education in 2015: some 54,000 Post-9/11 GI Bill students were starting non-degree college programs, and 30,000 started vocational and technical programs, while 87,275 started undergraduate degree programs and 19,222 started graduate degree programs.

policymakers greatly, but requires federal data matches. Data-linkage would enable exploration of the effectiveness of the Post-9/11 GI Bill in ensuring a successful civilian career for the current generation of veterans. Adding in data from the U.S. Defense Department's test scores on service members' abilities and skills could serve as "controls" in determining the impact of the GI Bill.

Executive Order 13607 (April 27, 2012) required VA and ED to share data to determine veteran student outcome measures, but, four and a half years later, the agencies still have not completed an MOU to do so.

Detailed Questions That Could Be Answered if Federal Data Were Combined:

1. **Participation in the Post-9/11 GI Bill**:

   a. **Nearly half of the Post-9/11 GI Bill goes unclaimed**. What are the demographics of veterans who skip the GI Bill? How are they faring? What are their occupations and incomes, and how do those compare to their occupations and incomes prior to military service? Are they reliant on public assistance? Did they skip the GI Bill because they already had a college degree, or because they had a strong career before military service? By historic contrast, only 20% of eligible veterans skipped the original GI Bill following WWII, and such eligible non-participants were often older (over the age of 35).[2] In terms of occupation prior to military service, most veterans who utilized the original GI Bill after WWII had "little or no pre-war experience in jobs requiring extensive skill or training," while those who skipped it (eligible non-participants) had been "working in jobs of a fairly high level" before the war.[3] Are these trends true today under the Post-9/11 GI Bill? Veterans organizations report anecdotal evidence that many veterans skipping today's GI Bill do need higher education but feel intimidated by the college search process and fear their academic skills are not up to par.

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[2] The President's Commission on Veterans' Pensions, *Veterans Benefits in the United States* (April 1954), Omar Bradley, Chairman (known popularly as the "Bradley Commission"), *available at* http://www.cnas.org/sites/default/files/Bradley_Commission_Report1956.pdf (page 251, 259). The Bradley Commission found that 83-86% of veterans in the two youngest groups (under 20 or between 20-24 years of age) used the GI Bill.

[3] Bradley Commission, *available at* http://www.cnas.org/sites/default/files/Bradley_Commission_Report1956.pdf (page 261). The Bradley Commission also reported that that many of the younger veterans "had held no regular job before entering service. In general, those who had held jobs were in relatively unskilled occupations." (page 258). In contrast, only 30% of pre-war managers and proprietors used the original GI Bill, as did only 39% of pre-war full-time employees. (page 261)

b. **Participation under the Post-9/11 GI Bill is increasing each year**. VA data shows that nearly 1 million eligible individuals participated in 2011, a 15% increase over FY 2010 and a 71% increase over FY 2009. Do the data show better student outcomes (such as persistence and completion) and civilian employment success among more recent GI Bill students as compared to 2009 and 2010? Are student loan debt and default levels rising? Has the return on taxpayer investment changed over time?

c. **Non-Veteran vs. Veteran Participants**. Veterans can choose to give some or all of their Post-9/11 GI Bill to their spouse or dependents, and 18% of GI Bill students are spouses or dependents. Do non-veteran GI Bill students enjoy better outcomes than veterans? Do they have better persistence and completion rates in college, perhaps indicating that veteran students need more support on campus? How do non-veteran Post-9/11 GI Bill students' loan debt and default rates compare to their veteran counterparts? Do non-veteran participants have higher incomes and better correlation between their occupation and field of degree?

d. **Outcomes by Demographics**. Are there differences by age, race, gender, ethnicity, or residential region in outcomes for Post-9/11 GI Bill users? For example, some VA analyses suggest that women veterans are more likely to use the Post-9/11 GI Bill than men. Is their persistence better? Are their outcomes better?

2. **GI Bill Effectiveness**. How effective is the Post-9/11 GI Bill in ensuring a successful civilian career for the current generation of veterans?

a. **Income & Public Assistance**. Do veterans have higher incomes and less dependence on public assistance programs after using the Post-9/11 GI Bill than before they used it?   By point of comparison, the original GI Bill, following WWII, reportedly reduced reliance on unemployment assistance from 20% of veterans.[4] What is known about veterans who rely on public assistance programs? How many have a college degree, whether through the Post-9/11 GI Bill or otherwise? What was their field of study in college? What is their occupation?

b. **Degree and Occupation**. Do veterans have different occupations after using the Post-9/11 GI Bill than before they used it? Among Post-9/11 GI Bill users, which occupations, degrees, and fields of study result in the highest income and least reliance on public assistance? Do the degrees and occupations correlate, or is occupational success (at least in some occupations) independent of degree

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[4] Bradley Commission, *available at* http://www.cnas.org/sites/default/files/Bradley_Commission_Report1956.pdf (pate 251).

obtained? What about licensed occupations? Does the GI Bill help veterans obtain work in licensed occupations? (Approximately 20% of a sample of 300 degree programs approved by VA for Post-9/11 GI Bill in licensed occupations are improperly accredited and fail to leave the graduates eligible to work.[5] What percent of veterans working in licensed occupations used the Post-9/11 GI Bill in that field of study? Are public colleges more likely to have the right accreditation for graduates to be eligible to work in licensed fields?) Which degrees and institution types produce graduates employed in which fields, with which licenses?

c. **Debt and Default**: What are the student loan debt and default rates for both veteran and non-veteran beneficiaries using the Post-9/11 GI Bill? Are debt and default rates higher for veterans than non-veteran students using the Post-9/11 GI Bill? Are there correlations in student loan debt and default by degree and field of study obtained? By college type (online vs. brick and mortar) and institutional sector? By occupation and income?

d. **Montgomery GI Bill vs. Post-9/11 GI Bill**: Does the Post-9/11 GI Bill deliver better return on investment, including student and occupational outcomes, than its immediate predecessor, the Montgomery GI Bill?

3. **Which College Experience Yields the Best Return on Investment under the Post-9/11 GI Bill?**

a. **Brick and Mortar vs. Online**. Among Post-9/11 GI Bill users, what type of college is most effective? Many experts assume brick and mortar colleges are more effective than online education, but online education is very popular with military students. What are the educational outcomes and civilian employment success for online student veterans?

b. **Institutional Sector**. Among Post-9/11 GI Bill users, which sector of college is associated with the best student outcomes and civilian employment success: public, non-profit, or for-profit? What is the return on investment from each sector?

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[5] See Veterans Education Success, "The GI Bill Pays for Degrees That Do Not Lead to a Job," (Sept. 2015) *available at* http://static1.squarespace.com/static/556718b2e4b02e470eb1b186/t/56ba65f8356fb040f04fb56a/1455056377419/GI+Bill+Dollars+do+not+pay+for+accredited+programs.pdf

i.   Several government[6] and private reports[7] have concluded that **for-profit colleges** do not serve students well. Do for-profit colleges have lower persistence and completion rates among Post-9/11 GI Bill students than other sectors? Do for-profit colleges produce higher student loan debt levels and default rates? What are the civilian employment results for Post-9/11 GI Bill graduates? Also, what is the return on investment?

ii. Experts often claim **public community colleges** produce better results for veterans, and significant public and private funds are invested in community college programs for veterans. What are the student outcomes and civilian employment success of veterans at community colleges compared to other sectors? What is the return on investment for veterans at community colleges?

c. **Specific Colleges**: Because much of the Post-9/11 GI Bill expenditures are concentrated in a handful of colleges, it is possible to derive robust samples at those colleges, enabling an assessment of how well the colleges are serving veterans and the taxpayer investment.

d. **Type of Degree**: Are there differences in the return on investment among GI Bill students attending college degree programs (e.g., Bachelor of Science in Engineering) vs. non-degree, certificate programs (e.g., Certificate in Radiology Technology) vs. vocational/technical programs (e.g., truck driving) – taking into account the cost of the program and the resulting civilian success? (Defense Department scores of service members' skills and abilities could serve as a control when measuring post-education occupational success.) Do demographic or household income correlate with type of degree chosen?

e. **Field of Study**: Is it possible to determine program-specific outcomes, such as the return on investment of a B.S. in Engineering vs. a B.S. in Nursing, factoring in demographic and pre-education differences?

We hope the Evidence Based Policymaking Commission can take strong steps to end the siloization of federal data and ensure that federal agencies share data to benefit the public as well as policymakers.

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[6] *See, e.g.*, U.S. Senate Committee 2012 report, "For-Profit Education: The Failure to Safeguard the Federal Investment and Ensure Student Success," *available at* http://www.help.senate.gov/imo/media/for_profit_report/PartI.pdf

[7] *See, e.g.*, National Bureau of Economic Research, "Evaluating Student Outcomes at For-Profit Colleges," (June 2012), *available at* http://www.nber.org/papers/w18201

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-DRAFT-0010
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

Dear Commission on Evidence-Based Policymaking,

I love the American concept of voter-based, Constitution-based, elected representative-based, policymaking. It's why I live in America. In contrast to voter-based policymaking there is evidence-based policymaking, which I don't love because it implies that one entity's "evidence" trumps individuals' consent to new policy changes.

Former Secretary of Agriculture Ezra Taft Benson said something about education that also applies to educational data and policymaking:

"The best way to prevent a political faction or any small group of people from capturing control of the nation's educational system is to keep it decentralized into small local units... This may not be as efficient as one giant super educational system (although bigness is not necessarily efficient, either) but it is far more safe. There are other factors, too, in favor of local and independent school systems. First, they are more responsive to the needs and wishes of the parents and the community. The door to the school superintendent's office is usually open to any parent [or teacher]... But the average citizen would be hard pressed to obtain more than a form

letter reply from the national Commissioner of Education in Washington, D.C."

Local control, and consent of the governed, are two foundational principles in our great nation.

Because the CEP is not an elected body, it does not hold authority to collect, or to recommend collection, of student-level evidence, or of any evidence, without written consent; and, for the same reasons, neither does the Department of Education.

Because the fifty, federally-designed, evidence-collecting, State Longitudinal Database Systems never received any consent from the governed in any state to collect data on individuals (as the systems were put into place not by authority, but by grant money) it follows that the idea of having CEP study the possible removal of barriers to federal access of those databases, is an egregious overstep that even exceeds the overstep of the State Longitudinal Database Systems.

Because federal FERPA regulations altered the original protective intent of FERPA, and removed the mandate that governments must get parental (or adult student) consent for any use of student level data, it seems that the idea of having CEP study and possible influence removal of additional "barriers" to federal use of data, is another egregious overstep.

As a licensed teacher in the State of Utah; as co-founder of Utahns Against Common Core (UACC); as a mother of children who currently attend public, private and home schools; as acting president of the Utah Chapter of United States Parents Involved in Education (USPIE); as a patriot who believes in "consent of the governed" and in the principles of the U.S. Constitution; and, as a current tenth grade English teacher, I feel that my letter represents the will of many who stand opposed to the study of the removal of protective barriers on student-level data, which the CEP's website has outlined it will do.

I urge this commission to use its power to strengthen local control of data, meaning parental and teacher stewardship over student data, instead of aiming to broaden the numbers of people with access to personally identifiable student information to include government agencies and/or educational sales/research corporations such as Pearson, Microsoft, or the American Institutes for Research.

To remove barriers to federal access of student-level data only makes sense to a socialist who agrees with the Marc Tucker/Hillary Clinton 1998 vision of a cradle-to-grave nanny state with "large scale data management systems" that dismiss privacy as a relic in subservience to modern government. It does not make sense to those who cherish local control.

It is clear that there is a strong debate about local control and about consent of the governed, concerning data and concerning education in general. NCEE Chair Mark Tucker articulated one side of the debate when he said: "the United States will have to largely abandon the beloved emblem of American education: local control. If the goal is to greatly increase the capacity and authority of the state education agencies, much of the new authority will have to come at the expense of local control."

Does that statement match the philosophical stand of this commission? I hope not. Local control means individual control of one's own life. How would an individual control his or her own destiny if "large scale data management systems" in a cradle-to-grave system, like the one that Tucker and Clinton envisioned, override the right to personal privacy and local control? It is not possible.

I urge this commission to use any influence that it has to promote safekeeping of unit-record data at the parental and teacher level, where that authority rightly belongs.

Sincerely,

Christel Swasey

United States Parents Involved in Education (USPIE) is a nonprofit, nonpartisan, nationwide coalition of state leaders focused on restoring local control of education by eradicating federal intrusion.   State leaders from around the country fed up with being ignored on education policy have joined forces to abolish the US Education Department and put an end to all federal education mandates.

USPIE endeavors to inform Americans of the trillions of dollars wasted on federal education in the last 35 years with nothing to show for it but stagnant, and declining test scores. It is the goal of USPIE to return American's education to its proper local roots and restore parental authority over their children's education.

USPIE's STOP FED ED campaign is led by parents, taxpayers and educators committed to ending the U.S. Department of Education. The fight against Common Core has exposed the failures of those trying to force a federally-based one size fits all curriculum on states and local school districts.

So we ask, "why even have a federal department?" Because it's not about children. It's about control. Control through federal dollars. And it's big business. It's about pushing an agenda. And it's about ending something that had worked for years and replacing it with something no one even understands.

For half a century now this experiment with federal control of local public schools has gone on and it's failed. Let's stop treating our children like rats in some social engineering laboratory and start treating children like children again. The first step is ending the Department of Education and that's what STOP FED ED is all about.

H1_2016_14
October 21, 2016 Hearing
United States Parents Involved in Education
Presenter: Erin Knowles
Note: Erin Knowles was unable to be present, but submitted written
remarks.

Commission on Evidence-Based Policymaking (CEP)
First Public Hearing: Friday, October 21, 2016

Comments Submitted by

Christine M Keller, PhD
Association of Public & Land-grant Universities (APLU)
Vice President, Research and Policy Analysis
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Abstract: The most significant barrier for evidence-based policymaking and decisions within higher education is the ban within the Higher Education Opportunity Act of 2008 that prohibits the Department of Education from collecting student-level data for postsecondary students.   The lack of national student-level data prevents the Department from calculating comprehensive progress and completion outcomes for students as they move across different higher education institutions, especially as they cross state boundaries. It also prevents the linking of postsecondary data with federal data from other agencies that would allow better evidence of outcomes after college (e.g., earnings, employment) as well as outcomes for students in key federally-funded programs (e.g., Pell grants, veterans benefits). The result is that students and families are left in the dark as they make the critical decision of which college or university is the right fit; policymakers struggle to appropriately hold accountable institutions receiving taxpayer dollars; and institutions lack the information they need to assess their performance and improve.

Oral and Written Statement
Co-chairs Abraham and Haskins and distinguished members of the Commission, thank you for the opportunity to submit comments for your consideration during this hearing. My name is Christine Keller and I am the Vice President of Research and Policy Analysis at the Association of Public and Land-grant Universities (APLU). APLU is a research, policy, and advocacy organization dedicated to strengthening and advancing the work of public universities in North America.

A top priority for APLU is to foster the widespread use of data and evidence to support decision-making - on university campuses and as the basis for sound and effective federal policy. APLU believes the most significant barrier for evidence-based policymaking and decisions within higher education is the ban that prohibits the Department of Education from collecting individual-level data for postsecondary students (Higher Education Opportunity Act of 2008). Lifting the ban in order to create a limited federal postsecondary student-level data system would produce more accurate details of student enrollment patterns, progression, completion, and post-collegiate outcomes. Such a system would assist with national priorities such as providing students and their families with more complete and accurate information when selecting a college. And better ensure that policymakers can appropriately allocate public resources and evaluate program effectiveness.

A student-level postsecondary data system would address one of the most significant shortfalls of the current institution-level data collections within the Department of Education – the inability to accurately report the

progress and completion of all students across multiple institutions and state boundaries. The current federal graduation rate only reports the completion of full-time students who start and finish at their first institution. Students who start their studies part-time or transfer institutions are not reported in the federal rate. Data from the National Student Clearinghouse demonstrate that these students comprise an increasingly large proportion of today's students. Sixty-four (64) percent of bachelor's degree recipients from public universities attend more than one institution before graduation and more than 60 percent of community college students attend part-time. Yet these students are missing from the federal graduation rate.

The Department of Education, to its credit, has made multiple attempts to address these shortcoming within the constraints of an institutional level collection. However, the information provided remains inadequate for consumers and policymakers, adds reporting burden for institutions, and, the latest attempt was judged too unreliable by the Department of Education to release the data publicly after the first year of collection. A student-level data collection would simplify the creation of progress and outcomes measures as well as increase reliability and consistency of the metrics across institutions.

A second significant shortfall of the current postsecondary data is the inability to create linkages between postsecondary education data and other federal data systems. Linking with other federal data systems would harness the data already collected through other agencies to provide key information such as employment and earnings after college for all students.   Progress and completion rates could be reliably and accurately calculated for student participating in federal programs such as Pell grants or GI Benefits. Combining information across federal agencies would streamline data collection, minimize duplicate reporting by institutions, and reduce the chance of errors in the resulting metrics.

Any student-level data system must include a robust set of protections and protocols to safeguard student data from unauthorized use or disclosures and to secure its collection and storage. Policies and procedures to protect data must be transparent and utilize evolving best practices for data security to address real and legitimate concerns about privacy and security, but privacy and security should not be used as an excuse for blocking transparency and access to more complete data.

Following are two specific examples from APLU members that illustrate why lifting the ban to create a system with more comprehensive and accurate data is a top priority for our association.

Example 1: Student Achievement Measure
As I mentioned earlier, the current federal graduation rate only includes first-time, full-time students who start and finish at their first institution. To help fill the data gaps in the federal system, the higher education community created **the Student Achievement Measure** (www.studentachievementmeasure.org) or SAM. SAM is a voluntary initiative that allows institutions to report the progress and completion of full-time, part-time, and transfer students. Over 600 colleges and universities from all 50 states and the District of Columbia are participating in SAM and reporting the outcomes of 600,000 more students than the federal government's measure.

One of the SAM participants is the University of North Texas. The federal graduation rate for UNT shows that just under half of first-time, full-time student who started in Fall 2009 graduated within 6 years. With only the information provided by the federal graduation rate, it appears that the other half of the students who started at the University of North Texas failed. However, by using the SAM methodology, UNT is able to show that another 13% of students graduated from another institution and another 14% are still enrolled pursuing their degree, for a total of 76% students who have graduated or are still enrolled.

SAM also reports the outcomes for the nearly 3,000 students who started at the University of North Texas as transfer students in Fall 2009 and are missing from the federal **rate** – 80% have graduated or are still enrolled after 6 years. All totaled, SAM includes another 3,000 of the University of North Texas's students who are not included in federal graduation rate.

SAM provides a powerful model of the type of information that would be available if the ban on collection of student-level data were lifted. However, SAM is not a substitute for a federal student-level data system. SAM is voluntary and does not include all postsecondary institutions. Nor is SAM the official data included in the U.S. Department of Education's College Scorecard, the U.S. Department of Veterans Affairs' college comparison tool, or other consumer information tools. A more complete federal solution is still needed.

Example #2: University of Texas System
A second example comes from the University of Texas System. The UT System has demonstrated the usefulness of student-level data as part of their consumer information tool – seekUT (http://utsystem.edu/seekut/). By combining student-level data and the state workforce data, the UT System is able to present information such as the average cumulative student loan debt and median earnings at one, five, and ten years post-graduation for students graduating from specific programs at the UT institutions.

However, as useful and powerful as having earnings data at the state level has been, there were key limitations that hindered the UT System's ability to answer critical questions. Without a federal postsecondary data solution they were limited to data for those graduates that remained in Texas after graduation and unable to account for the earnings of graduates that move out of state. UT System administrators recognized that they needed national data across all states to evaluate and improve academic programs. And provide students with more comprehensive employment and earnings information to show a realistic picture of earnings after graduation. This information would help students make more informed decisions about their choice of majors and appropriate amounts of debt.

In fact, the UT System felt that national employment and earnings data would be of such high value that they recently finalized an agreement with the US Census Bureau to provide national post-college outcomes for UT graduates through a pilot research project. The Census-UT System collaboration is an important demonstration of how higher education and federal agencies can break down silos and work together. Imagine how valuable would it be if all colleges and universities and state systems could have access to similar information to support institutional evaluation and improvement and student decision-making – without each entity negotiating a separate agreement?   A national student-level data system could help all institutions more readily reach that goal.

In sum, lifting the ban on the collection of student-level postsecondary data would provide access to more comprehensive, meaningful data and allow for the better alignment and integration with other federal data systems. The results would strengthen the federal government's ability to provide essential information on higher education – for student and families to make more informed decisions about where to attend college; for policymakers to determine allocations of public resources and evaluate program effectiveness; and for college leaders to develop institutional policies and practices that support successful outcomes for all students.

As the Commission continues to develop a strategy for increasing the availability, alignment, and use of high quality data to inform policy and decision-making, we encourage your consideration of the acute need for more accurate and complete postsecondary data for all users.

APLU is a research, policy, and advocacy organization dedicated to strengthening and advancing the work of public universities in the U.S., Canada, and Mexico. With a membership of 236 public research universities, land-grant institutions, state university systems, and affiliated organizations, APLU's agenda is built on the three pillars of increasing degree completion and academic success, advancing scientific research, and expanding engagement.   Annually, its 194 U.S. member campuses enroll 3.9 million undergraduates and 1.2 million graduate students, award 1 million degrees, employ 1 million faculty and staff, and conduct $40.2 billion in university-based research.

Commission for Evidence-Based Policymaking Public Hearing: Remarks from the American Statistical Association's Scientific and Public Affairs Advisory Committee

October 21, 2016

My name is Clyde Tucker and I am a member and former chair of the American Statistical Association's Scientific and Public Affairs Advisory Committee. The American Statistical Association was founded in 1839 and is the oldest continuously operating scientific society in the United States. With more than 19,000 members working in academia, government, and industry, the ASA works to promote the practice and profession of statistics, the science of learning from data, and measuring, understanding, and communicating its uncertainty. We believe that statistics and the ability to interpret statistical evidence are integral to the success of evidence-based policy making.

The ASA lauds Speaker Ryan and Senator Murray for their actions and efforts to bring evidence-based policymaking into the limelight. The ASA heartily supports the Commission for Evidence-Based Policymaking and looks forward to the Commission's efforts to improve the science surrounding evidence-based policymaking. We appreciate that three Commissioners are members of the ASA, two of which are former heads of federal statistical agencies. In my brief comments today, I will focus on five issues: (i) the stature and autonomy of the federal statistical system; (ii) data sharing that leads to data synchronization; (iii) concerns related to privacy and confidentiality that may present barriers to the release of data needed for evidence-based policy making; (iv) nurturing evidence-based policymaking capacity across the federal government; and (v) statistical evidence.

 To ensure that the statistical analysis used to support evidence-based policy making is both impartial and accurate, the integrity of the research process must be maintained. In particular, the ASA believes that the federal statistical agencies will play a vital role in evidence-based policymaking, and ASA is committed to supporting the historical autonomy of these agencies in order to ensure the integrity of their work. In a 2015 letter to Congress, twenty former statistical agency heads wrote,

> As the foundation for policy making and policy administration, objective and credible statistical data are vital to our democracy, economy, governance, and well-being. All sides of a policy debate should be able to look to the statistical data as objective and high quality. Any perception that the data have been influenced by a partisan perspective undermines the policy making and its administration. The independence of a federal statistical agency is a critical element in an agency producing objective and credible statistical data… Statistical agencies should have complete control over data collection, analysis, and publication. Such autonomy

       should include control over an agency's planning, budget, press releases, and
       information technology.
In the past, this independence for some agencies has been protected from direct political
interference by requiring that the heads of statistical agencies be appointed by the
President and confirmed by the Senate. Currently, however, Senate confirmation is no
longer required to appoint the director of the Bureau of Justice Statistics or the
commissioner of the National Center for Education Statistics (NCES). There is also a House-
passed bill pending in the Senate that would remove presidential appointment of the NCES
Commissioner.

The ASA also supports data linkage and collaboration between the federal statistical
agencies. Indeed, greater information sharing across agencies would enhance the research
supporting evidence-based policymaking. One example of this type of data sharing is data
synchronization. For example, ASA advocates, as a follow up to the Confidential Information
Protection and Statistical Efficiency Act (CIPSEA), providing the Bureau of Labor Statistics
and the Bureau of Economic Analysis the same access to the Internal Revenue Service's
business information that the Census Bureau currently has. Supported not just by ASA but
also by a wide variety of other stakeholders, this carefully crafted proposal costs no money,
but would result in substantial improvements to the quality of our nation's official economic
statistical data, ultimately benefitting policymakers, US businesses, and many other
Americans. For more information on this, I provide links to three resources at the end of my
written comments that I understand you will have access to.

Although privacy and confidentiality are important concerns with respect to the release of
data for research purposes, barriers created to ensure privacy and confidentiality could
limit analysis critical for evidence-based policymaking. In particular, researcher's access to
data often is delayed as a result of the need to undergo reviews by multiple Institutional
Review Boards (IRBs). This process can impede the ability to respond quickly to the needs
of policymakers. I have provided a link to a new National Academies report that notes the
delays caused by the multiple IRB approvals sometimes needed for a single study and the
serious problems this creates for timely policymaking.

While perhaps beyond the charge of this committee, ASA also encourages more resources
for federal agencies to develop their internal capacities for evidence-based policymaking.
Although the statistical agencies have statistical expertise needed for evidence-based
policymaking, a number of agencies do not. More could be done to increase this analytical
capacity across the government. Given the constrained budgets of the federal government,
we understand adding personnel with appropriate expertise isn't widely feasible. However,
we strongly encourage alternative solutions, such as guidance documents and professional
development on this topic. In fact, staff at the statistical agencies might be involved in these
endeavors. We would also support greater agency collaboration through reduced barriers
and greater access to data for trusted and vetted users in ways that ensure confidentiality
protection.

Let me close with comments on statistical evidence for the wider evidence-based
policymaking community. We encourage the use of modern statistical and data science
methods in program evaluations—methods such as Bayesian modeling, decision analysis,
and big data techniques. To put our comments in context, we recently saw statistical
language in pending legislation that seemed artificially restrictive. Specifically, we were
concerned that the language might limit analysis to significance testing or p-values alone.

The ASA Scientific and Public Affairs Advisory Committee recently released a statement with guidance on statistical language in legislation, http://ww2.amstat.org/misc/SPAAC_GuidanceStatisticalEvidence.pdf. We look forward to continued conversation on this issue.

To reiterate, we fully support the Commission on Evidence-Based Policymaking and look forward to engaging the statistical community in your efforts. Thank you for your time.

Links for 2015 letter to Congress from twenty former statistical agency heads:
- http://ww2.amstat.org/misc/FormerAgencyHeadLetter.pdf
- http://community.amstat.org/blogs/steve-pierson/2015/01/29/former-federal-statistical-agency-heads-urge-stronger-nces-as-senate-panel-advances-bill-to-weaken-it

References on Data Synchronization
- http://www.aei.org/publication/data-asymmetry-public-policy/
- http://www.copafs.org/UserFiles/file/FederalBusinessRegistryLetterSenatewithAttach.pdf
- http://magazine.amstat.org/blog/2011/11/01/data-synchronizationscipolicy/

Reference to the National Academies report on multiple IRB approvals
- https://www.nap.edu/catalog/23670/strengthening-data-science-methods-for-department-of-defense-personnel-and-readiness-missions

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0036
Comment on FR Doc # 2016-22002

Submitter Information

Name: Elaine Simons

General Comment

This is a gross misuse of our government. It is sick and disgusting that information that is not the federal governments to posses and never should be stored by the federal government is increasing by leaps and bounds. This is leading into a socialist and corrupt government wanting to dictate and control its citizen's lives by data control. No ones personal data should be stored by the government, but especially those of children and private citizens. Also, I do believe if you study federal regulations, information can NOT be stored on a United States Citizen for any length of time, unless that person is involved in an ongoing investigation. In more ways than one, this is highly illegal and unconstitutional. Reading this document is just a sick show of how far our government has fallen into corruption and does not value freedom of citizens. As you can see I am against data collection of this form and the storing of it by the federal government. Those organizations who are pushing this and the government employees who are invested should be held accountable for their corruption.

PUBLIC SUBMISSION

As of: August 04, 2017
Received: November 07, 2016
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Posted: November 16, 2016
Tracking No. 1k0-8swp-pyw3
Comments Due: December 14, 2016
Submission Type: Web

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0037
Comment on FR Doc # 2016-22002

Submitter Information

Name: Glenn Freeman

General Comment

We do not need another bunch of government tax paid bureaucrats to track us. When you get track of all those rag heads and other possible terrorists then you may have enough smarts to try this, However, I would advocate for the blood of some patriots to oil the wheels of freedom. Damn anybody who would scheme to take my freedoms - what few are left.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0038
Comment on FR Doc # 2016-22002

Submitter Information

Name: DONNA GARNER

General Comment

POSTED BY DONNA GARNER - 11.8.16 -- I am deeply opposed to a student unit-record system because the federal government should not be tracking and building dossiers on American citizens. (1) The dangers of such a federal tracking system being hacked by outsiders is very probable. (2) The federal government does not do an adequate job of protecting personally identifiable data from being shared with third parties. These very real concerns far outdistance any positive good that could come from such a student unit-record system.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0039
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Please don't tell me that compiling information on children, with that knowledge base lasting through their adult years, is being done for the good of the children. Very little these days is done for children's benefits. It's all about adult needs and wants. How can education be used by adults to make more money, build more power bases, and thus climb on children's backs in the process. This smacks of science fiction stories about government control over people's lives through benign efforts to "guide" them. This has to stop. Right now. Right here.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0040
Comment on FR Doc # 2016-22002

Submitter Information

Name: Lisa Jones

General Comment

I OPPOSE a student unit-record system.

The federal government should not be tracking and building dossiers on American citizens.

The likelihood of such a federal tracking system being hacked by outsiders is probable.

The federal government does not do an adequate job of protecting personally identifiable data from being shared with third parties.

These very real concerns far outweigh any positive aspect that could come from collecting this data.

Parents (constituents) WON'T STAND FOR IT - and THEY will find out!!

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0041
Comment on FR Doc # 2016-22002

Submitter Information

Name: Helen Morris

General Comment

See attached file(s)

Attachments

CEP_PREP_LetterACAP

Commission on Evidence-Based Policymaking Comments
Docket ID: USBC-2016-0003
Federal Register Number: 2016-22002

Alexandria Campaign on Adolescent Pregnancy
421 King Street, Suite 400
Alexandria, VA 22314

November 8, 2016

Dear Chair Katharine G. Abraham, Co-chair Ron Haskins, and members of the Commission:

The Alexandria Campaign on Adolescent Pregnancy (ACAP) welcomes the opportunity to provide comments to the Commission on Evidence-Based Policymaking (CEP). We offer input for questions 16 and 18 based on our experience as a grantee of a high-quality evidence-based program, the Personal Responsibility Education Program (PREP). This program has been recognized as a pioneering example of tiered evidence-based policymaking, and it represents an important contribution to building a body of evidence of what works. This includes high quality implementation, evaluation, innovation, and learning from results.

ACAP is a coalition made up of city agencies, organizations, and community members, including parents and youth, dedicated to reducing adolescent pregnancy through culturally and age appropriate education, advocacy, technical assistance, direct service prevention programs, and public awareness. Collaboratively, we work with our young people, their families, and the community to secure brighter futures. Our goal is to reduce the adolescent pregnancy rate in the City of Alexandria from 23.1 per 1000 females age 10-19 to 19.8 per 1000 females age 10-19 by 2018.

As a **two-time** PREP grantee, we incorporate evidence into all aspects of our project. The program model we implement was chosen because it has been rigorously evaluated and demonstrated to change behavior.

We also have used evidence to guide and improve our project throughout the grant period. Through data and feedback from student focus groups and surveys, we were able to identify additional student needs and implement mindfulness and financial literacy lessons into the adult preparation component of our program. As a result, students have reported stronger money management skills, and a better ability to calm their mind and body and handle stress.

Further, due to the success of the Evidence-Based Programs we use (Be Proud! Be Responsible! and Becoming a Responsible Teen), the data shows our students feel they have improved their self-efficacy regarding sexual behavior, including being able to say no to peer pressure, use a condom correctly, talk to their partner about using condoms, and use a condom every time they have sexual intercourse.

In closing, we consider PREP to be a prime example of high-quality evidence-based policymaking, and we urge continuation and expansion of PREP in the coming budgets. It is one of the few government programs that use evidence and evaluation criteria throughout the grant life cycle. Thank you for considering our input for the CEP. If you have any questions or need additional information, please contact me at 703-851-3660 or **zozilla1@gmail.com**.

Sincerely,
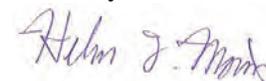
Helen Morris
Chair
Alexandria Campaign on Adolescent
Pregnancy

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0042
Comment on FR Doc # 2016-22002

Submitter Information

Name: Regulatory Studies Center Peacock, Miller, & Prez
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General Comment

The George Washington University Regulatory Studies Center (the Center) improves regulatory policy through research, education, and outreach. As part of its mission, the Center approaches regulatory problems from the perspective of the public interest and occasionally responds to government requests for input. The Center provides these comments regarding question numbers 1, 10, and 15-19 presented in the Supplementary Information section of the Commission on Evidence-Based Policymaking's (the Commission's) Federal Register notice issued on September 14, 2016. These comments are organized in six sections. The first section is an introduction. Each subsequent section corresponds to one or more of the Commission's questions. An additional section at the end proposes specific findings, conclusions and recommendations for legislation or administrative action that the Commission may want to include in its final report.

(See the attached file to continue reading)

Attachments

GWRegStudiesCenter_Evidence-Based-Rulemaking

THE GEORGE WASHINGTON UNIVERSITY

WASHINGTON, DC

Public Interest Comment[1] to the

Commission on Evidence-Based Policymaking

Docket ID USBC-2016-0003; Docket No. 160907825–6825–01

"Commission on Evidence-Based Policymaking Comments"

November 8, 2016

Marcus C. Peacock[2]
Sofie E. Miller[3]
Daniel R. Perez[4]

The George Washington University Regulatory Studies Center (the Center) improves regulatory policy through research, education, and outreach. As part of its mission, the Center approaches regulatory problems from the perspective of the public interest and occasionally responds to government requests for input. The Center provides these comments regarding question numbers 1, 10, and 15-19 presented in the Supplementary Information section of the Commission on Evidence-Based Policymaking's (the Commission's) *Federal Register* notice issued on September 14, 2016. These comments are organized in six sections. The first section is an introduction. Each subsequent section corresponds to one or more of the Commission's questions. An additional section at the end proposes specific findings, conclusions and recommendations for legislation or administrative action that the Commission may want to include in its final report.

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[1] This comment reflects the views of the authors, and does not represent an official position of the GW Regulatory Studies Center or the George Washington University. The Center's policy on research integrity is available at http://regulatorystudies.columbian.gwu.edu/policy-research-integrity. The Center is located at 805 21st St. NW, Suite 612, Washington, DC 20052.

[2] Marcus C. Peacock is a Distinguished Research Professor at the George Washington University Regulatory Studies Center at 805 21st St. NW, Washington, DC. He can be reached at M_Peacock@gwu.edu.

[3] Sofie E. Miller is a Senior Policy Analyst at the George Washington University Regulatory Studies Center at 805 21st St. NW, Suite 609, Washington, DC. She can be reached at SofieMiller@gwu.edu or at (202) 994-2975.

[4] Daniel R. Pérez is a Policy Analyst at the George Washington University Regulatory Studies Center at 805 21st St. NW, Suite 609, Washington, DC. He can be reached at DanielPerez@gwu.edu or at (202) 994-2988.

Introduction: Evidence-Based Regulation (EBR)

Regulation may have a larger impact on society than any other single federal policymaking process. Regulations protect public health, promote economic growth, and help preserve our environment. Various estimates of regulation's impact on society vary from over $260 billion to over $2 trillion.[5] By comparison, the total of all federal funding for research and development, for instance, is less than $160 billion a year.[6]

The Regulatory Process Differs from Other Policymaking

As the Commission examines strategies to better build evidence-based programs and policies throughout government, it is vital to understand the regulatory policymaking process already incorporates significant requirements regarding the collection, use and accessibility of data that differ from other policymaking processes. For instance, the Administrative Procedure Act of 1946[7] (the APA) requires regulatory agencies to both disclose, as well as request from the public, data or other information pertinent to a rulemaking.[8] Likewise, the APA compels agencies to justify most regulatory decisions based on the data, analyses, and other information collected and made part of a publicly available record. If, for instance, a decision appears "arbitrary and capricious" compared to the evidence in the public record the resulting regulation may be vacated.[9]

The APA is not the only important mandate affecting the collection, dissemination, and analysis of data during regulatory policymaking. Other requirements unique to regulations include, but are not limited to:[10]

- The Regulatory Flexibility Act of 1980 which requires agencies collect and assess data regarding the effect of major proposed regulations on small businesses;

- The Unfunded Mandates Reform Act of 1995 which established a requirement to collect and analyze data regarding certain regulatory burdens on state and local governments;

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[5] Maeve P. Carey, "Methods of Estimating the Total Cost of Federal Regulations," Congressional Research Service, 21 January 2016, p. 2. See https://www.fas.org/sgp/crs/misc/R44348.pdf

[6] This estimate was produced by the American Association for the Advancement of Science in 2016. See http://www.aaas.org/sites/default/files/Function%3B.jpg

[7] Pub.L. 79–404, 60 Stat. 237.

[8] See, for instance, the requirements to disclose information at 5 U.S. Code § 552(a) and to request information at 5 U.S. Code § 553(c).

[9] 5 U.S. Code § 706(2)(A).

[10] This list adapted from Susan E. Dudley and Jerry Brito, *Regulation: A Primer*, Second Edition, Washington DC: The Mercatus Center and The George Washington Studies Center (2012), pp. 45-47.

- The Small Business Regulatory Enforcement Fairness Act of 1996 requiring *ex ante* evaluations of the impact of certain regulations on small businesses;

- The Congressional Review Act of 1996 requiring the submission of certain regulatory data and documentation to Congress;

- The Truth in Regulating Act of 2000 allowing Congress to request the Government Accountability Office evaluate certain proposed and final rules;

- Executive Orders 12866, 13563 and 13579, as well as OMB Circular A-4 regarding analyses that must be performed before certain rulemakings can be proposed or finalized; and

- These Executive Orders and Executive Order 13610 also encourage agencies to perform *ex post* reviews of the effectiveness of regulations.

In addition, there are other laws affecting data collection and use which, while not unique to the regulatory process, originated due to concerns regarding regulations. Such laws include the Paperwork Reduction Act of 1980 (affecting the government collection of information) and the Information Quality Act of 2000 (which established minimum requirements for the utility, integrity, and objectivity of information used by government).

The unique data constraints placed on regulatory policymaking makes evidence-based regulation a distinct subset of evidence-based policymaking. It means that in some situations a recommendation that may benefit most methods of policymaking may be undesirable, or even illegal, in the rulemaking process. For instance, the Commission could recommend agencies seek out particular types of data and experts in order to help determine where federal grants may have the greatest impact. Regulatory agencies who follow formal, or adjudicatory rulemaking procedures, however, may be subject to charges of inappropriate *ex parte* communication if they undertook the same action.[11] Even for informal, notice-and-comment rulemaking, final actions are often subject to litigation, which places additional constraints on the evidence in the record. The Commission may well need to make recommendations that are tailored to regulatory agencies or, at least, identify which recommendations do, or do not, apply to regulatory policymaking.

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[11] Unlike designing a grant program, the prohibition of *ex parte* contact during certain rulemakings recognizes that making regulations can have the character of an adjudication with a decision 'on the record' by an impartial decision-maker. Because such contacts may not be monitored, they create a risk that the decision-maker's neutrality may be compromised. For more information see Edward Rubin, "It's Time to Make the Administrative Procedure Act Administrative," *Cornell L. Rev.* 89:95 (2003). See http://scholarship.law.cornell.edu/cgi/viewcontent.cgi?article=2940&context=clr

In order to assist the Commission in making recommendations specific to regulatory policymaking, the following comments focus solely on the regulatory process. The Center is available to assist the Commission in determining whether other recommendations it wishes to consider may or may not improve regulatory policymaking.

A Framework for Evidence-Based Regulation

Regulators should be able to demonstrate they are benefitting peoples' lives by creating policies that address a "compelling public need," as directed by Executive Order 12866.[12] Increasing the use of evidence in making regulations will make agencies smarter, improve regulatory decisions, and, ultimately, result in better outcomes for society. Recognizing this, we offer the following integrated framework describing a system that produces evidence-based regulation (EBR) (see box below). *An EBR process plans for, collects, and uses evidence throughout the life of a regulation to predict, evaluate and improve outcomes.*

The framework is structured around the three main phases of regulating: design, decision-making, and retrospective review. It creates a feedback loop (through retrospective review) during implementation of the rule so that data are not only used in developing the regulation but also in periodically reassessing its value and modifying the rule as appropriate. Importantly, this framework incorporates important and current requirements of the federal rulemaking process pertinent to the collection and use of data.

While it is not necessary for the Commission to endorse the EBR Framework, the Framework provides a coherent integrated system for answering a number of the Commission's specific questions.

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[12] E.O. 12866, *§1: Statement of Regulatory Philosophy and Principles.*

Evidence-Based Regulation Framework

I.   **Regulatory Design**

    A. Identify the problem (state the "compelling public need").

    B. Evaluate whether modifications to existing rules can address the problem.

    C. Identify and assess available alternatives to direct regulation.

    D. If regulating, determine that the preferred alternative addresses the problem.

    E. Set clear performance goals and metrics for outputs and outcomes.

    F. Exploit opportunities for experimentation.

    G. Plan and budget for retrospective review.

II.   **Regulatory Decision-making**

    A. Assess the expected benefits, costs, and other impacts.

    B. Clearly separate scientific evidence from policy judgments.

    C. Make relevant data, models and assumptions available to the public.

III. **Retrospective Review**

    A. Reassess planned retrospective review and modify if necessary.

    B. Gather necessary data on regulatory outputs and outcomes.

    C. Implement retrospective review plan.

    D. Compare measured outcomes to original performance goals.

    E. Reassess the rule using new information and the factors in the regulatory design.

Questions 1 & 15 Regarding Challenges, Barriers, and Solutions

Question 1. Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/ or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

Question 15. What barriers currently exist for using survey and administrative data to support program management and/or evaluation activities?

Questions 1 and 15 are combined since two of the barriers we identify in response to question 15 can be overcome by policies, practices and other methods that we also identify for question 1. Specifically, agency noncompliance with internal administrative requirements and inadequate funding of program evaluation are two barriers the regulatory system currently faces in collecting and using data to improve regulations and offers potential solutions to each one.

The Challenge of Noncompliance with Internal Directives

A barrier to evidence-based regulation is a lack of faithful compliance with internal administrative requirements. For instance, since 1981 presidents have required regulators who were considering a new regulation to identify and disclose the problem they intended to solve by regulating and assess different regulatory alternatives to solving that problem (these are items I.A. and I.C. under "Regulatory Design" in the EBR Framework shown above). In addition, each president since Jimmy Carter has required regulators to assess and disclose both the expected benefits and the expected costs of the regulatory alternatives (the estimation of both benefits and costs is shown in item II.A. in the EBR Framework).

Identifying the problem to be solved is a prerequisite for designing a regulation that provides net social benefits[13] and for evaluating the effectiveness of a rulemaking once it is in place. Absent a clearly identified market failure, regulation and other forms of government intervention can disrupt competition, and lead to misallocation of resources.[14] Thus, targeting a fundamental problem rather than relying on anecdotes to support regulation is important, not only for regulatory design but for knowing what data to collect. Likewise, laying out policy alternatives[15]

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[13] According to E.O. 12866, "Each agency shall identify the problem that it intends to address (including, where applicable, the failures of private markets or public institutions that warrant new agency action) as well as assess the significance of that problem." (Principles of Regulation, Sec.1(b)(1))

[14] Office of Management and Budget, "Circular A-4: Regulatory Analysis." September 17, 2003. https://www.whitehouse.gov/omb/circulars_a004_a-4

[15] E.O. 12866 states, "Each agency shall identify and assess available alternatives to direct regulation, including providing economic incentives to encourage the desired behavior, such as user fees or marketable permits, or

and using data to assess expected benefits and costs[16] is a fundamental method of informing decision-makers. Nonetheless, in 2014 the Government Accountability Office estimated that less than a fourth of new significant rules disclosed these four basic presidential requirements.[17]

A more recent example of agency noncompliance with internal administrative requirements entails the retrospective review of regulations (items I.G. and III. in the EBR Framework). Every president since Jimmy Carter has required the *ex post* evaluation of regulations (retrospective review). Most regulatory decisions rely on predictive models and assumptions, but rarely are those hypotheses evaluated based on real world evidence.[18] A requirement to evaluate whether predicted effects of regulations were realized would provide a powerful incentive to improve *ex ante* regulatory impact analyses, as well as improve regulations that are already in place.[19]

With this in mind, in 2011 and 2012 President Barack Obama signed three Executive Orders attempting to get agencies to more aggressively adopt the retrospective review of regulations: Executive Order 13563 "Improving Regulation and Regulatory Review,"[20] which reinforced the requirements of Executive Order 12866; Executive Order 13579,[21] which expanded the requirements to independent regulatory agencies; and Executive Order 13610, which emphasized that "further steps should be taken…to promote public participation in retrospective review."[22,23]

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providing information upon which choices can be made by the public." (Sec.1(b)(3))

[16] E.O. 12866 states, "Each agency shall assess both the costs and the benefits of the intended regulation and, recognizing that some costs and benefits are difficult to quantify, propose or adopt a regulation only upon a reasoned determination that the benefits of the intended regulation justify its costs." (Sec.1(b)(6))

[17] Government Accountability Office, "Federal Rulemaking: Agencies Included Key Elements of Cost Benefit Analysis, but Explanations of Regulations' Significance Could Be More Transparent," September 2014, p. 18. See http://www.gao.gov/assets/670/665745.pdf

[18] See, for instance, a discussion of the assumptions and models used to establish the ozone national ambient air quality standard at Susan E. Dudley, *Regulatory Science and Policy: A Case Study of the National Ambient Air Quality Standards,* The George Wash. Univ. Reg. Studies Ctr. (September 2015), pp. 11-12. http://regulatorystudies.columbian.gwu.edu/regulatory-science-and-policy-case-study-national-ambient-air-quality-standards

[19] Susan E. Dudley, *A Retrospective Review of Retrospective Review*, The George Wash. University Regulatory Studies Center (May 2013), p.2. See http://regulatorystudies.columbian.gwu.edu/files/downloads/20130507-a-retrospective-review-of-retrospective-review.pdf

[20] Executive Order 13563 was followed by implementation guidance. See Memorandum from OIRA Administrator Cass Sunstein to the Heads of Executive Departments and Agencies, "Retrospective Analysis of Existing Significant Regulations," 25 April 2011 at https://www.whitehouse.gov/sites/default/files/omb/memoranda/2011/m11-19.pdf

[21] Executive Order 13579, "Regulation and Independent Regulatory Agencies." July 14, 2011. 76 FR 41587.

[22] It should be noted that, in addition to these Executive Orders, some laws require the retrospective review of certain regulations. For instance, section 812 of the Clean Air Act Amendments of 1990 requires the Environmental Protection Agency to periodically assess the benefits and costs of regulations promulgated under the Act.

However, an independent review of high-impact rules issued in 2014 found that the key requirements in these directives were seldom followed.[24] For example, the identification of measurable metrics that could be subsequently used to evaluate the impacts of rules were only identified in one-third of the regulations, and even fewer for rules issued by independent agencies. To be clear, this is not a recent problem. As a general matter, such levels of noncompliance with presidential Executive Orders and other internal Executive Branch guidance in modern times are not unusual.[25]

Solving Noncompliance through Independent Review, Codification, and Competition

In examining how to improve the performance of people working in government bureaucracies, management expert William Medina has laid out three ways to change behavior:[26]

- compel them (forced change);
- persuade them (through education); and/or
- change their incentives.

A recent review of a lack of faithful compliance with government-wide reforms in U.S. federal agencies over a period of fifty years found three possible ways to improve behavior: create independent organizations to help execute the rules; codify administrative requirements into law; and create competition.[27] The first two methods force change while the third attempts to change incentives.

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[23] Executive Order 13610, "Identifying and Reducing Regulatory Burdens." May 10, 2012. 77 FR 28469.

[24] Sofie E. Miller, "Learning from Experience: Retrospective Review of Regulations in 2014," Working Paper, The George Washington University Regulatory Studies Center, November 2015. As a general matter, other researchers have also concluded that there is generally a lack of compliance with retrospective review requirements. See Reeve T. Bull, "Building a Framework for Governance: Retrospective Review and Rulemaking Petitions," *Admin. L. Rev.*, 67:265 (2015).

[25] See, for instance, the lack of compliance with eight government-wide reforms since 1965 discussed in Marcus C. Peacock, "Improving the Accountability of Federal Regulatory Agencies Part II: Assessing Eight Government-wide Accountability Reforms," 28 June 2016. This can be accessed at https://regulatorystudies.columbian.gwu.edu/sites/regulatorystudies.columbian.gwu.edu/files/downloads/RegInsight_Peacock-Reforms-Improving-Accountability_pt2.pdf

[26] William A. Medina, *Changing Bureaucracies: Understanding the Organization Before Selecting the Approach*, Marcel Dekker, Inc: New York, NY (1982), pp. 118-119.

[27] See Marcus Peacock, "Improving the Accountability of Federal Regulatory Agencies Part III: What Reforms Work Best," Regulatory Insight, The George Washington University Regulatory Studies Center, 12 September 2016, p. 22. See http://bit.ly/2fvzFLg

Strengthening Independent Review

There are many examples of governments tackling the problem of internal noncompliance by creating independent organizations to either monitor compliance (such as the Inspectors General) or to faithfully execute the requirements themselves. A specific example of the latter strategy is in the European Union (EU).[28] Concerns regarding a lack of compliance with internal guidelines requiring the self-evaluation of the effectiveness of policies[29] resulted in the EU creating a separate *ex post* evaluation body. This new organization is completely independent from the member nations and reports directly to the European Parliament.[30]

Independent review does not necessarily entail creating a new entity. The Commission may wish to consider, for instance, enlisting the U.S. court system to improve compliance. Judicial review has been largely successful in achieving compliance with the public notice and evidentiary requirements codified in the APA (discussed above). Agencies know their regulations can be nullified unless they can convince a court that the standards of transparency and assessment set out in the APA have been met. Expanding the existing judicial review of regulations to include one or more elements of the EBR Framework, such as determining whether a final rule includes an adequate plan for retrospective review, would undoubtedly improve compliance with those elements. Relying on the courts would also avoid the cost of creating a new entity within the federal government.

Codification of Accepted Practices

Another approach to motivating agencies to comply with internal administrative requirements is to codify such requirements in law. For instance, the last section below includes a recommendation that elements of the EBR Framework that have been adopted by consecutive presidents over a long period of time be more firmly institutionalized by putting them in law. This would be an incremental step in improving compliance as it would increase their permanence and subject compliance to greater oversight, particularly by Congress.

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[28] Céline Kauffmann, "The OECD Perspective on Good Regulatory Practices and International Regulatory Cooperation," Commentary, The George Washington University Regulatory Studies Center, 19 December 2014. Available at https://regulatorystudies.columbian.gwu.edu/oecd-perspective-good-regulatory-practices-and-international-regulatory-cooperation

[29] See, in particular, Official Journal of the European Union, Court of Auditors, "Special Report No. 1/2006 on the contribution of the European Social Fund in combating early school leaving, together with the Commission's replies," 2006/C 99/01. This audit found that agencies allocating funding for the purpose of keeping students in school generally did not utilize readily available performance data.

[30] This is the Ex Post Impact Assessment Unit in the European Parliamentary Research Service. See European Parliament, "Evaluation and ex-post impact assessment at EU level," September 2016 available at http://www.europarl.europa.eu/RegData/etudes/BRIE/2016/581415/EPRS_BRI(2016)581415_EN.pdf

For example, Senators Heidi Heitkamp (D-N.D.) and James Lankford (R-Okla.) have proposed the Smarter Regulations Act[31] which would require agencies to include in major rules a framework for reassessing the rule, including the timeframe for reassessment,[32] the metrics that should be used to gauge efficacy,[33] and a plan to gather relevant data to compile these metrics.[34] The framework established in this proposed legislation was approved by a Senate committee by voice vote in October 2015.[35] The bill is consistent with the EBR Framework and our recommendation below.

Changing Incentives by Creating Competition

It would be a mistake to assume that creating an independent organization or codifying best practices would completely solve the problem of unfaithful execution. For instance, the Office of Information and Regulatory Affairs (OIRA) was created in the U.S. Office of Management and Budget (OMB), in part, to better enforce administrative benefit-cost analysis requirements on regulatory agencies. Yet compliance with these standards remains far from perfect.[36]

In addition to relying on independent organizations and codification to help defeat unfaithful execution, it may be effective to change the incentives of federal agencies by making them compete with each other or other entities. Competition is long been recognized as an extremely powerful motivator of federal agencies.[37] While it may not seem obvious, federal agencies already compete with each other. For instance, they are in a constant and robust competition to maintain or increase their budgets. As proof of competition's effects, this long running competition for funding has resulted in a panoply of clever budget strategies.[38]

One way to create a healthy competition among federal agencies is to use comparison data. While their effects may vary, comparison data has been shown to be a strong motivator in state governments[39] particularly if the data are accessible and trustworthy. Indeed, federal agencies

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[31] Smarter Regs. Act of 2015, S. 1817, 114th Cong. (2015).

[32] S. 1817, § 2(f)(1)(D).

[33] S. 1817, § 2(f)(1)(B).

[34] S. 1817, § 2(f)(1)(C).

[35] For more information on S. 1817 see https://www.congress.gov/114/crpt/srpt282/CRPT-114srpt282.pdf

[36] Patrick McLaughlin, Jerry Ellig, John Morrall, "Continuity, Change, and Priorities: The Quality and Use of Regulatory Analysis Across U.S. Administrations," *Regulation and Governance*, June 1, 2013. See http://onlinelibrary.wiley.com/wol1/doi/10.1111/j.1748-5991.2012.01149.x/full

[37] See, for instance, William A. Niskanen, "Competition among Government Bureaus," in Carol H. Weiss and Allen H. Barton, editors, *Making Bureaucracies Work*, Sage Publications: Beverly Hills, CA (1980), pp. 167-174.

[38] Aaron Wildavsky, *The Politics of the Budgetary Process*, Fourth Edition, Little, Brown and Company: Boston, MA (1984), pp. 64 – 84.

[39] See E. Blaine Liner, Harry P. Hatry, Elisa Vinson, Ryan Allen, Pat Dusenbury, Scott Bryant, Ron Snell, "Making

themselves are increasingly using comparison data to change the incentives of the entities they regulate including everything from colleges[40] to nursing homes[41] to chemical manufacturers.[42] One idea would be to look for federal programs that have very similar goals but achieve them in different ways, such as through grants, regulations, tax credits, and/or loan guarantees.[43] A third party, the Government Accountability Office, for instance, could then collect data regarding the efficiency of each program and rank the various programs on this criterion. This may mean, for instance, estimating how many homeless families are provided long-term shelter for each dollar spent, or how many unemployed persons get and retain a job for each dollar spent.

One might initially expect large differences in the results agencies achieve. For instance, in 2003 a back of the envelope comparison of flood mitigation programs showed that for the same federal expenditure a Department of Agriculture grant program appeared to produce 40 percent more floodplain protection benefits than a Federal Emergency Management Agency grant program.[44] The periodic publication of such data from a reliable source could result in agencies having strong incentives to collect, analyze, and act on evidence so as to improve their program and achieve a better ranking.[45] Evidence-based policymaking could become the method by which agencies in compete in a "race to the top."

The Problem of Inadequate Funding

Another barrier to evidence-based regulation is funding for *ex ante* and *ex post* analysis and evaluation. Like the barrier of noncompliance, this problem is not unique to EBR but can block the collection and evaluation of data regardless of program. It may be that some of the substantial resources currently spent on *ex ante* regulatory review could be more prudently shifted to conducting a retrospective review of federal rules.[46] Such a reallocation could in turn

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Results-based Government Work," The Urban Institute, April 2001, p. 18. Available at http://www.urban.org/sites/default/files/alfresco/publication-pdfs/310069-Making-Results-Based-GovernmentWork.PDF

[40] The U.S. Department of Education's "College Scorecard" at https://collegescorecard.ed.gov/

[41] The Medicare program's "Nursing Home Compare" ratings at https://www.medicare.gov/NursingHomeCompare/About/Ratings.html

[42] Jason Scorse, 2003, "Do Pollution Rankings Affect Facility Emissions Reductions?: Evidence From The Toxic Release Inventory," dissertation retrieved from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.511.173&rep=rep1&type=pdf

[43] Budget subfunctions may be a method for narrowing these programs down. See https://www.whitehouse.gov/tax-receipt/functions

[44] U.S. Office of Management and Budget, *Addendum to the Fiscal Year 2006 Budget*. See https://www.whitehouse.gov/omb/memoranda_m02_06_addendum

[45] In some respects, the "Best Places to Work in the Federal Government" rankings released by the Partnership for Public Service provide a model for such a system of comparison. See http://bestplacestowork.org/BPTW/

[46] See Susan E. Dudley, A Retrospective Review of Retrospective Review, The George Wash. University

strengthen *ex ante* analyses by providing direct information on the causal outcomes one would expect as the result of regulatory policy.[47]

Three Possible Solutions to the Problem of Inadequate Funding

One means of accomplishing this goal without significantly altering the federal budget is for Congress and OMB to more readily allow the reallocation of resources from current *ex ante* regulatory impact analyses to gathering the data and evaluation tools necessary to subsequently test *ex ante* predictions. This may simply require the appropriation of less "one-year money" and more "multi-year money" to allow agencies greater flexibility in when they use their budget authority.[48] Right now the vast majority of funding for analyses is spent upfront and very little is used after rules are promulgated. It seems extremely unlikely this is an optimal balance.

Another possible solution is to allow, or require, a small percentage of funds be set aside for program evaluation or for policies based on program evaluation. This is not unprecedented. In 1978 Congress allowed the U.S. Department of Agriculture (USDA) to set aside up to 0.5 percent of the program funds allocated for its Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) to evaluate the program's performance, including experimenting with different pilot projects.[49] More recently, the Senate Appropriations Bill for FY 2014 allowed five percent of mental health block grants to states be used for "evidence-based programs that address the needs of individuals with early serious mental illness, including psychotic disorders."[50]

Constrained budgets tend to result in agencies "curtailing the funds needed for evaluation studies and performance monitoring systems."[51] However, there is considerable evidence that the use of evaluation not only leads to improved regulatory outcomes, but also provides additional benefits for nonregulatory agencies—particularly those operating in an environment of stagnant or decreasing budgets. For example, Newcomer et al. detail several instances where the results of

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Regulatory Studies Center (May 2013), p.2 at
http://regulatorystudies.columbian.gwu.edu/files/downloads/20130507-a-retrospective-review-of-retrospective-review.pdf . We also recommend the Commission examine recommendations from the Administrative Conference of the United States regarding the use of resources in conducting retrospective reviews, which can be found at https://www.acus.gov/sites/default/files/documents/Recommendation%25202014-5%2520%2528Retrospective%2520Review%2529_1.pdf

[47] Susan E. Dudley, "Quantifying Regulatory Efficacy," background paper for OECD Workshop on Socioeconomic Impact Assessment of Chemicals Management. Forthcoming.

[48] "One-year money" is budget authority that expires at the end of the fiscal year in which it was appropriated.

[49] Newcomer, Kathryn E., Harry P. Hatry editor, and Joseph S. Wholey editor. 2015. *Handbook of Practical Program Evaluation*. Hoboken, NJ: Jossey-Bass p. 807

[50] S. 1284, Report No. 113–71, p. 114.

[51] Newcomer et al., p. 807.

evaluation data on program performance caused agencies to shift funding and effort away from less successful programs towards better-performing initiatives. The data made available to Congress regarding success in achieving outcomes allowed agencies to maintain or even expand their programs during periods of significant cuts in federal domestic spending during the 1980s. These programs included: the Department of Labor's Job Corps program and the aforementioned WIC program at USDA.[52]

Finally, it is important to note that the cost of both *ex ante* and *ex post* analyses and evaluation need not be high. An important principle is that the cost of conducting a regulatory analysis should reflect the potential value of such analysis and, if necessary, can be quite inexpensive.[53] Joseph Wholey proposes that evaluators use "a sequential purchase of information" approach such that "resources are invested in further evaluation only when the likely usefulness of the new information outweighs the costs of acquiring it."[54] EBR would benefit from such flexible standards regarding what constitutes useful analysis and evaluation.

Questions 10 & 16: Access and Use of Evidence

Question 10. How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions?"

Question 16. How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?

This response addresses questions 10 and 16 regarding access and use of evidence. In regulatory processes agencies are compelled, with narrow exceptions, to make data, analysis and other evidence used by decision-makers available to the public. As noted above, agencies must place information they use in decision-making in a public record and be able to justify their decisions based on the evidence in that record.

We support the bedrock regulatory principle of openness and this is reflected in item II.C. in the EBR Framework under Regulatory Decision-making. Thus, in answer to question 10, with regards to information that will be used to make regulatory decisions, as much information as

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[52] *Ibid*, p. 829.

[53] Christopher Carrigan and Stuart Shapiro, "What's wrong with the back of the envelope? A call for simple (and timely) benefit–cost analysis," *Regulation and Governance*, 26 April 2016.

[54] Newcomer et al., p. 89. This approach is one of several suggestions contained within Wholey's framework of Evaluability Assessment which proposes several techniques for evaluators to leverage low cost information significant program improvement.

possible should be made available and it should be made available to everyone. The public has a right to know what evidence policy officials consider in making decisions that affect them.

We offer two answers to question 16, regarding the "best use" of "data, statistics, result of research, and findings from evaluation." The first relates to the need for transparency in regulatory decision-making. The second answer regards how evidence may be best organized to promote its best use.

Data and Findings Must be Separated from Policy

Regulatory agencies are generally compelled to request information and other data from the public. However, the opportunity for public comment should include access to the various data, statistics, findings and other information the agency is using to make a regulatory decision. The "best use" of information will likely occur only after it is scrubbed by public review.

The EBR Framework addresses important guidance on how data and other evidence should be used and communicated. In particular, in regulatory decision-making the presentation of evidence must be separated from policy decisions so that the public understands what is a fact (what *is*) and what is a policy judgment (what *ought to be*). This has important implications for public access to the data, models and assumptions used to make regulatory decisions, particularly when it comes to scientific information.

The boundary between objective science and policymaking is inherently fuzzy.[55] Creating clarity regarding where this boundary is and the role of scientists at this boundary is important.[56] In our democracy, the public must be able to hold regulatory policymakers, typically the president and his or her appointees, accountable for their decisions. It is for this reason the regulatory process already mandates requirements for policymakers to reveal and explain how they reached a regulatory decision based on publicly available evidence. This process assumes the public is able to separate the evidence the decision-maker considered from the judgments they made. Evidence-based policy expert Ray Pawson explains:

> Evidence does not deliver decisions; its function is to deliver decision support. When evidence is called into play in policy formation, it is never a case of simply 'following the evidence' but rather one of 'interpreting the evidence' and then

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[55] See, for instance, the discussion in Susan E. Dudley and George M. Gray, "Improving the Use of Science to Inform Environmental Regulation," in Jason S. Johnson (ed.), *Institutions and Incentives in Regulatory Science,* New York, NY: Lexington Books (2012), pp. 165-198.

[56] See Ann Campbell Keller, *Science in Environmental Policy: The Politics of Objective Advice,* MIT Press: Cambridge, MA (2009).

'adapting the evidence' to local circumstances. No method of synthesis can tell the policy maker what to do.[57]

Given both the fuzzy boundary between evidence and policy and the need to keep scientific and policy judgments as separate as possible for reasons of accountability, the solution is for regulatory agencies to be as open as possible regarding the decisions they make. Recounting his experience as the Administrator of the EPA from 1977 to 1980, Doug Costle has explained:

> People tend to think science is hard and numerical and precise. It's not, particularly in the environmental area. But there is one way, and only one way, to deal with that, and that is just to be absolutely open and honest about the gray areas. Anyway you cut it, we're making judgments, social policy judgment calls…[58]

An example of conflating evidence and policy is application of the precautionary principle. In short, the precautionary principle advocates for the use of preemptive regulation in the face of scientific uncertainty regarding possible threats to the health of humans or ecosystems.[59] The application of the precautionary principle is not a purely scientific decision. Indeed, it confuses scientific uncertainty with scientific ignorance and is squarely inconsistent with an approach built on a foundation of evidence. As Ray Pawson has pointed out:

> The precautionary principle betokens a move from evidence to advocacy. It forecloses debate and stifles the search for further evidence. By definition the zero emission, zero concentration, zero tolerance standards are not empirically derived—they concede that the evidence is not yet in.[60]

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[57] Ray Pawson, *Science of Evaluation: A Realist Manifesto*, Thousand Oaks, Calif.: SAGE (2003), p. 190.

[58] As quoted in Ronald Brand, Thomas Kelly, A. Stanley Meiburg, Robert Wayland, Susan Wayland, David Ziegele, *True Green: Executive Effectiveness in the U.S. Environmental Protection Agency*, Gerald A. Emison and John C. Morris, eds., Lexington Books: Lanham, MD (2012), p. 77. In his seminal work on the fuzzy boundary between scientific evidence and policy ("Science and Trans Science," *Minerva*,10(2): 209-222, 1972), Alvin Weinberg put it another way, "Though the scientist cannot provide definite answers to trans-scientific questions any more than can the lawyer, the politician or a member of the lay public, he does have one crucially important role: to make clear where science ends and trans-science begins."

[59] Martuzzi, M. and Tickner, J. (eds) (2004) The precautionary principle: Protecting public health, the environment and the future of our children. Copenhagen, Denmark: World Health Organization, Europe.

[60] Pawson, p. 174.

Muddled Fact and Policy Causes Problems

Despite the necessity of separating what *is* from a decision regarding what *ought to be*, scientific evidence and policy decisions have become increasingly muddled.[61] This results in a host of significant problems including degrading the perceived integrity of evidence-based policymaking. As the Bipartisan Policy Center notes:

> Policy makers often claim that particular regulatory decisions have been driven by, or even required by science; their critics, in turn, have attacked the quality or the interpretation of that science. Such conflict has left the U.S. with a system that is plagued by charges that science is being "politicized" and that regulation lacks a solid scientific basis. As a result, needed regulation may be stymied, dubious regulations may be adopted, issues can drag on without conclusion and policy debate is degraded. Moreover, the morale of scientists is weakened, and public faith in both government and science is undermined.[62]

The Bipartisan Policy Center concludes that "a tendency to frame regulatory issues as debates solely about science, regardless of the actual subject in dispute, is at the root of the stalemate and acrimony all too present in the regulatory system today."[63]

Clear Separation and Broad Access Solves This Problem

The EBR Framework calls for the separation of these elements during regulatory decision-making (see item II.B.). If not clearly separated, the increased use of evidence may ironically harm, rather than improve, the integrity of the regulatory process. As the Bipartisan Policy Center concluded, "the Administration needs to devise regulatory processes that, in as many situations as possible, could help clarify for both officials and the general public which aspects of disputes are truly about scientific results and which concern policy."[64] "This transparency would both help force values debates into the open and could limit spurious claims about, and attacks on science."[65]

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[61] The scientific community increasingly wrestles with fact more and more scientists are being encouraged to become engaged with the public policy process. See, for instance, Deborah Runkle, Mark S. Frankel ed., "Advocacy in Science: Summary of a Workshop convened by the American Association for the Advancement of Science," 1 May 2012, pp. 2-3.

[62] Bipartisan Policy Center, *Improving the Use of Science in Regulatory Policy*, Washington (DC): Bipartisan Policy Center; 2009;10. Available at:
http://www.bipartisanpolicy.org/sites/default/files/BPC%20Science%20Report%20fnl.pdf

[63] *Ibid.*, p. 11.

[64] *Ibid.*, p. 4.

[65] *Ibid.*, p. 5.

Given the need to make it clear what the data show vs. what policymakers decide, the public should have as broad an access to data, statistics, results of research, and findings from evaluation as possible so that people have the ability to make their own judgments regarding the interpretation of data. President Obama's March 2009 Scientific Integrity Memo supports this goal, stating that "[t]o the extent permitted by law, there should be transparency in the preparation, identification, and use of scientific and technological information in policymaking."[66]

Access to the "results of research" should include risk assessments, models, and the assumptions that were used to synthesize data for the purpose of making regulatory decisions. The National Research Council has concluded that there should be "unrestricted access" to public-use data that pose no confidentiality problems.[67] This category should also include any models and other analytic tools used to assess data that, by their nature, do not pose concerns about the breach of individual, household or other confidential personal information. If such a tool was used to materially inform a regulatory decision, the public should have access to that tool. As is being shown in the case of opening up competing proprietary climate change models, scrutiny from others will very likely improve the models' credibility and accuracy and result in the data's "best use."[68]

Access to Evidence Organized by 'Program Theory' Could Benefit Regulators

The "best use" of evidence can also be improved by how evidence is organized. Regulatory evaluations are often categorized under their substantive program area (e.g., environment, health, or education). As a practical matter this can limit the amount of data that is consulted during regulatory design and decision-making, such as during the consideration of alternatives (see item I.C. in the EBR Framework). Categorizing evaluation data under the additional criteria of similar program theory domains (e.g., incentives, target setting, or behavior change) could greatly improve rulemaking. Consulting the widest possible range of evaluation data for similar program theory domains allows regulators to survey a broader knowledge base and help discover more constraints or barriers that might, for instance, limit the expected benefits or reduce the expected costs of regulations.

Theoretically, the efforts to make evaluation data available across agencies, such as in a clearinghouse, will help create a wider distribution of evidence going forward. However,

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[66] Memorandum for the Heads of Executive Departments and Agencies from Barack Obama, "Scientific Integrity," March 9, 2009 at 74 *FR* 10671. See https://www.gpo.gov/fdsys/pkg/FR-2009-03-11/pdf/E9-5443.pdf

[67] National Research Council Panel on Data Access for Research Purposes, *Expanding access to research data: reconciling risks and opportunities*, Washington, DC: National Academies Press (2005), p. 3.

[68] Paul Voosen, "Climate scientists open up their black boxes to scrutiny," *Science*, 354:6311 (28 October 2016), pp. 401-402.

grouping evidence by program theory can tie together seemingly different interventions and help regulators identify unintended consequences or important contexts to consider during their early design of potential regulatory approaches.[69] For example, Ray Pawson's organizing principles of evaluation science suggest that such a level of abstraction "provides the means of establishing a common language to draw out the similarities between different interventions...to link their evaluations" and increase learning.[70]

An example of this is evaluations from state/local "ban the box" legislation, which prevents employers from asking prospective applicants about their criminal record with the intention of decreasing discrimination against those with a criminal record. Evaluations of these programs indicate that they have the unintended/perverse effect of increasing discrimination against minorities, particularly African Americans.[71] Rather than thinking of this, conceptually, as a "lesson learned" for officials at the Department of Labor, there is a broader finding that could be applicable to other federal agencies: namely, the unintended consequence of trying to incentivize certain behavior by limiting data. Additionally, this framework helps shift evaluation thinking from simply inquiring whether a program "works" to the more nuanced "what works for whom in what contexts."[72]

Questions 17 & 18: Address Retrospective Review in Regulatory design

Question 17. To what extent can or should program and policy evaluation be addressed in program designs?

Question 18. How can or should program evaluation be incorporated into program designs? What specific examples demonstrate where evaluation has been successfully incorporated into program designs?

Ex post regulatory evaluation (retrospective review) is a vital and integral element of the EBR Framework (see items I.G. and III). Retrospective review advances knowledge over the mere hope that regulations are delivering the benefits society expects. However, it must be incorporated into regulatory design in order to facilitate this evaluation. Similar to other federal

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[69] For examples of this see R. Merton, *On Theoretical Sociology: Five essays old and new*. New York: Free Press (1967)

[70] Pawson, p. 190.

[71] Amanda Agan and Sonja Starr, "Ban the Box, Criminal Records, and Statistical Discrimination: A Field Experiment," *U of Michigan Law & Econ Research Paper No. 16-012,* 2016. See also: Jennifer Doleac, "'Ban the Box' does more harm than good," May 2016, Brookings Institute. Available at: https://www.brookings.edu/opinions/ban-the-box-does-more-harm-than-good/

[72] Pawson, p. xiii.

programs, waiting until after a regulation is implemented to plan *ex post* measurement can greatly hamper retrospective review.[73]

Both OMB[74] and the Administrative Conference of the United States (ACUS) have recommended that agencies design their rules prospectively for retrospective analysis. For instance, in his report to ACUS, Joseph Aldy concludes:

> Well-designed regulations should enable retrospective analysis to identify the impacts caused by the implementation of the regulation. For a given select, economically significant rule, agencies should present in the rule's preamble a framework for reassessing the regulation at a later date. Agencies should describe the methods that they intend to employ to evaluate the efficacy of and impacts caused by the regulation, using data-driven experimental or quasi-experimental designs where appropriate.[75]

These recommendations echo a larger body of research. For instance, in a study for the World Bank, Paul Gertler et al. conclude that the appropriate methods for conducting program evaluation, or retrospective review, should be identified "at the outset of a program, through the design of prospective impact evaluations that are built into the project's implementation."[76] This allows evaluators to fit their evaluation methods to the program being reviewed, and to plan for review itself through the design and implementation of the program (or regulation).

For these reasons we have prominently included retrospective review as a necessary element of regulatory design in the EBR Framework, and we recommend this design requirement be codified in law to emphasize its importance.

It should be noted that the strong connection between regulatory design and retrospective review also strengthens the need to complete other elements of the regulatory process in the design stage. For instance, in addition to planning for retrospective review, the EBR Framework requires regulators to:[77]

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[73] Other reasons to plan evaluations in advance include compliance with the Paperwork Reduction Act which requires the prior approval of the U.S. Office of Management and Budget before collecting information from 10 or more members of the public. See 5 C.F.R. Part 1320.8(b)(3)(iii) (2015).

[74] U.S. Office of Management and Budget. *2015 Draft Report to Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities*, p. 7.

[75] Joseph E. Aldy. "Learning from Experience: An Assessment of the Retrospective Reviews of Agency Rules and the Evidence for Improving the Design and Implementation of Regulatory Policy," a report for the Administrative Conference of the United States. 2014, p. 6.

[76] Paul J. Gertler, Sebastian Martinez, Patrick Premand, Laura B. Rawlings, and Christel M. J. Vermeersch, *Impact Evaluation in Practice*, The World Bank, 2011, pp. xiii–xiv.

[77] These components are adapted from Miller, p. 10.

- Identify the problem they are trying to solve.

- Evaluate whether modifications to existing rules can address the problem.

- Identify and assess available alternatives to direct regulation.

- If regulating, determine that the rule addresses the problem.

- Set clear performance goals and metrics for outputs and outcomes.

- Exploit opportunities for experimentation.

All six of these design components directly relate to retrospective review. One purpose for incorporating these components into rules at the outset is to plan for review well before much of the crucial information necessary for an effective evaluation has been generated. Otherwise agencies may not have identified the goal(s) of the regulation much less how to collect data on the regulation's impacts. This information is crucial for assessing how well a rule has met its intended target and the extent to which there may be other, unintended, consequences. Independent regulatory agencies especially should make greater efforts to outline what they intend for their rules to accomplish.[78] This transparency allows the public to know what to expect from new regulations and what observers should strive to measure to assess the success of a rule.

Although few regulations have been designed to facilitate *ex post* review, the recent driverless cars policy guidance is an example of what may be possible. In September 2016 the National Highway Traffic Safety Administration (NHTSA) released its Federal Automated Vehicles Policy[79] establishing how the agency will address driverless car technology through its current regulatory structure and identified new regulatory tools that could be used in the future. Given the state of change in automated vehicle technology, NHTSA plans to update this policy in an iterative process so as to respond to new data and technologies as they emerge. For instance, the agency has already noted it will consider the option of implementing a sunset on federal motor vehicle safety standards so that the agency can reconsider whether the standards are still effective as driverless car technology continues to develop. This iterative approach combined with a commitment to collect and synthesize evidence as it comes in appears to reflect the right approach to regulating a new and promising technology.[80]

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[78] Independent agencies are less likely than executive branch agencies to write rules that identify the problem they are intended to solve, provide metrics for assessing whether a problem has been solved, and link the proposed rule to intended outcomes. See Sofie E. Miller, "Learning from Experience: Retrospective Review of Regulations in 2014," *Working Paper*, The George Washington University Regulatory Studies Center, November 2015, p. 18.

[79] National Highway Traffic Safety Administration, the U.S. Department of Transportation. *Federal Automated Vehicles Policy: Accelerating the Next Revolution In Roadway Safety*. September 2016. See https://www.transportation.gov/sites/dot.gov/files/docs/AV%20policy%20guidance%20PDF.pdf

[80] Although NHTSA's approach to review and iteration is well-aligned with the principles of the EBR Framework, the agency does discourage state-level competition which would be aligned with the principles explored in the section immediately below: *Keep Evaluation Options Flexible.*

Question 19: Keep Evaluation Options Flexible

> *Question 19. To what extent should evaluations specifically with either experimental (sometimes referred to as "randomized control trials") or quasi-experimental designs be institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?*

The EBR Framework does not specify what types of experimental designs should be used in analyzing or evaluating regulations. Rather, the rigor of the analysis should match the regulatory situation and the value such analysis may offer decision-makers.[81]

Randomized controlled trials are well-regarded tools used by program evaluators to understand the effect of different treatments on outcomes.[82] However, where randomized trials are not feasible, pilot studies or approaches that allow for variation in regulatory treatments can serve as "quasi-experiments" (QEs) that provide valuable information for evaluating outcomes and their causal links.[83] According to Coglianese:

> Variation in observational studies can arise in one of two ways: either over time or across jurisdictions. When regulations vary over time within a single jurisdiction, researchers can compare outcomes longitudinally, that is, before and after the adoption of the regulation. When the variation exists across jurisdictions, researchers can compare outcomes cross-sectionally, that is, comparing outcomes in jurisdictions with the regulation being evaluated with those in jurisdictions without that regulation.[84]

Designing regulations from the outset in ways that identify and exploit variations in compliance could be a valuable way to understand the relationship between regulatory actions and outcomes. A pilot study or "an experiment in which certain regulations would be imposed on some factories and not on others offers the real prospect of determining whether those regulations are useful."[85]

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[81] See *supra* note 45.

[82] *See* Angela Ambroz and Marc Shotland, *Randomized Controlled Trial (RCT)*, Better Evaluation: Sharing information to improve evaluation at http://betterevaluation.org/plan/approach/rct

[83] Sofie E. Miller & Susan E. Dudley. "Regulatory Accretion: Causes and Possible Remedies." *Administrative Law Review Accord Vol. 67 Issue 2*.

[84] Coglianese, Cary (2012), "Evaluating The Impact of Regulation and Regulatory Policy," in Measuring Regulatory Performance, OECD, available at *https://www. oecd.org/gov/regulatory-policy/1_coglianese%20web.pdf*

[85] John O. McGinnis, *Accelerating Democracy: Transforming Governance through Technology*, Princeton, NJ: Princeton University Press (2013), p. 112.

In the U.S. federalist system, the states provide a particularly valuable opportunity for experimentation. For example, Oates suggests that "the introduction in the 1970s and 1980s of a variety of emissions trading systems at the state level demonstrated the feasibility of such systems and some of their very appealing properties—as well as certain pitfalls." He suggests that this state-level experimentation with innovative solutions to emissions problems led to the successful introduction of the national system of tradable sulfur allowances under the 1990 Clean Air Act Amendments.[86] Such quasi-experimental approaches facilitate learning from experience in a way that implementing large-scale, irreversible regulatory programs do not.[87]

The EBR Framework calls on regulators to look for and exploit opportunities for experimentation during regulatory design. For instance, researchers have suggested how the statutorily required five-year National Ambient Air Quality Standards reviews could incorporate QE techniques to gather and analyze epidemiology data and health outcome trends in different regions of the country and compare them against predictions.[88] Unfortunately, the U.S. Environmental Protection Agency has not pursued this idea.

The EBR Framework also requires agencies plan and budget for retrospective review as part of their regulatory design. This means agencies should lay out a program for empirical testing of assumptions and hypothesized outcomes. To incentivize more robust evaluation, they could also be required to test the validity of risk-reduction predictions before commencing new regulation that relies on models. For example, for regulations aimed at reducing health risks from environmental factors, QE techniques should be used to gather and analyze epidemiology data and health outcome trends in different regions of the country and compare them against predictions.[89]

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[86] Oates, W.E. Environmental Federalism. Resources for the Future (RFF); 2009. Available at: http://www.rff.org/Publications/WPC/Pages/Environmental-Federalism-Wallace-E-Oates.aspx

[87] Sofie E. Miller & Susan E. Dudley. "Regulatory Accretion: Causes and Possible Remedies." *Administrative Law Review Accord Vol. 67 Issue 2*.

[88] Francesca Dominici, Michael Greenstone and Cass R. Sunstein, "Particulate Matter Matters." *Science* 344:257 (2014).

[89] Sofie E. Miller & Susan E. Dudley. "Regulatory Accretion: Causes and Possible Remedies." *Administrative Law Review Accord Vol. 67 Issue 2*.

Suggested Recommendations for Findings, Conclusions and Legislation or Administrative Actions

We suggest the Commission consider including the following findings, conclusions and recommendation for legislation or administrative actions in its report to the President and Congress.

Suggested Finding	Suggested Conclusion	Suggested Recommended Action
REGULATORY POLICY Regulatory policymaking is already subject to significantly different information requirements compared to other policymaking processes. The increased use of evidence will result in better regulatory decisions.	Actions to improve evidence-based policymaking should be tailored to the regulatory process. It would be beneficial to identify a model process for creating evidence-based regulations.	"OMB should integrate evidence more effectively in its…regulatory decisions by tracking and evaluating the results of the policies it issues."[90] The president should consider commissioning a set of experts to describe an ideal evidence-based regulatory process and identify specific steps necessary to move to such a system.
ACCOUNTABILITY Regulatory decision-makers need to be held publicly accountable for the decisions they make.	The interpretive models, analyses and other tools used by regulators to make decisions should be accessible to the public.	The president should provide unrestricted access to all interpretive data tools used by regulators to make decisions.
COMPLIANCE Federal regulatory agencies do not always faithfully comply with presidential executive orders and other internal administrative guidance.	Compliance with presidential directives and administrative guidance should be improved. Codification of a requirement in law results in greater compliance than administrative guidance.	Regulatory principles accepted by the last five presidents[91] should be codified in law and subject to judicial review. Regulatory requirements in Executive Orders 13563, 13579 and 13610 regarding retrospective review should be codified in law and subject to judicial review.[92]

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[90] Recommendation of the Partnership for Public Service, "From Decisions to Results: Building a More Effective Government Through a Transformed Office of Management and Budget," Washington DC, October 2016, p. 24. Available at https://ourpublicservice.org/publications/viewcontentdetails.php?id=1349

[91] These principles will be found in Section 1 of Executive Order 12866 issued by President William Clinton on October 4, 1993. Available at https://www.whitehouse.gov/sites/default/files/omb/inforeg/eo12866/eo12866_10041993.pdf

[92] See Recommendation 2014-5, "Retrospective Review of Agency Rules" issued by the Administrative Conference of the United States. See https://www.acus.gov/recommendation/retrospective-review-agency-rules

Suggested Finding	Suggested Conclusion	Suggested Recommended Action
COMPETITION Competition can change the incentives and behavior of government organizations in positive ways.	The president and Congress should encourage methods of having programs with similar goals compete on the basis of program efficiency (e.g., desirable outcomes achieved per dollar spent by society).	The president and congress should commission experts to categorize federal programs with similar goals and identify metrics that could be used to compare their efficiency.[93] A limited set of comparisons should be implemented within two years.
FUNDING Federal discretionary spending is likely to be flat or decreasing in the future while entitlement program spending will continue to increase. Lack of funding is a barrier to collecting and using evidence. The cost and depth of evaluations and their value to decision-making can greatly vary.	The collection and use of evidence will need to be funded by shifting discretionary funding from lower priorities. The type of evaluation performed should reflect its potential value to improving federal policy.	Congress should provide greater flexibility to reallocate discretionary funding from lower priority uses to the greater collection and use of evidence. The president and congress should refrain from institutionalizing any particular type of evaluation method.
EVIDENCE AND POLICY Government officials sometimes muddle a description of "what is" with "what ought to be."	The use of evidence needs to better separate scientific descriptions from policy judgments. This confusion masks policy decisions. This degrades political accountability and harms the integrity of evidence-based policymaking.	The president should "promulgate guidelines (through executive orders or other instruments) to ensure that when federal agencies are developing regulatory policies, they explicitly differentiate, to the extent possible, between questions that involve scientific judgments and questions that involve judgments about economics, ethics and other matters of policy."[94]

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[93] Such an effort could greatly benefit from the experience of the Council of State Governments' State Comparative Performance Measurement Project. See http://www.csg.org/programs/policyprograms/CPM.aspx

[94] See Recommendation One at Bipartisan Policy Center, *Improving the Use of Science in Regulatory Policy*, Washington (DC): Bipartisan Policy Center; 2009; p. 4.

Suggested Finding	Suggested Conclusion	Suggested Recommended Action
RETROSPECTIVE REVIEW Regulatory retrospective review is best planned out when a regulation is initially designed. Regulatory retrospective review relies on other elements of regulatory design, such as defining the problem to be solved and identifying alternatives for comparison.	Regulatory design must include retrospective review and its supporting elements.	Regulatory requirements in Executive Orders 13563, 13579 and 13610 regarding retrospective review should be codified in law and subject to judicial review.[95] Regulatory principles accepted by the last five presidents that support retrospective review should be codified in law and subject to judicial review.[96]
CATEGORIZATION OF EVIDENCE Regulators can benefit from learning lessons from programs not in their substantive expertise.	The best use of evidence may require it be organized by program theory (e.g., behavioral change) rather than issue area (e.g. transportation)	To the extent evidence of evaluations are consolidated, require "type of program theory" to be a characteristic that can be used to find evidence of federal program impacts.
EXPERIMENTATION The increased collection and use of evidence from regulatory evaluations will result in better regulatory decisions.	Randomized controlled trials to evaluate regulations are not always feasible. Pilot studies or approaches that allow for variation in regulatory treatments ("quasi-experiments" or QEs) can provide valuable information at less cost.	The president should encourage regulators to adopt QE techniques where more expensive evaluations may be infeasible or of less value. If necessary, Congress should amend regulatory authorities to allow agencies greater flexibility to design regulations to facilitate differences in implementation that allow quasi-experimentation. For instance, laws should allow limited pilot studies, or defer more to the natural experimentation possible at the state level.

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[95] This repeats a recommendation shown in the "Compliance" section above.

[96] This closely matches a recommendation shown in the "Compliance" section above.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0043
Comment on FR Doc # 2016-22002

Submitter Information

Name: Tom Gallagher

General Comment

See attached file(s)

Attachments

Docket ID 160907825-6825-01-Commission on Evidence-Based Policymaking Comments

State of Wyoming
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Matthew H. Mead
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November 9, 2016

To: The Commission on Evidence-Based Policy Making

Subject: Response to the "Request for Comments for the Commission on Evidence-Based Policy Making," Department of Commerce [Docket Number 160907825-6825-01] published in the Federal Register Vol. 81, No. 178, September 14, 2016 pages 63166-63168.

From: Tom Gallagher

Manager, Research & Planning
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Research & Planning (R&P) is a statistical Labor Market Information (LMI) office located in the State agency which operates the Unemployment Insurance (UI) program. R&P's state employees are agents of the Commissioner of the Bureau of Labor Statistics (BLS). Our BLS work, programs operated under contracts to the Office of Employment and Unemployment Statistics and Office of Compensation and Working Conditions (including the Census of Fatal Occupational Injuries), are carried out under the Confidential Information Protection and Statistical Efficiency Act. These program operations include accessing state UI administrative data, vital records, and other administrative data.

Grant funding from the U.S. Department of Labor's Employment and Training Administration is used to develop data access agreements with all of public education student records in Wyoming, occupational licensing agencies, and UI data sharing agreements with 11 other states.

R&P's mission is: To establish an empirically based comprehensive understanding of the labor market: its constituent elements, systems integrating its components, and subsequent outcomes. Attached is a selected chronological listing of our research illustrating how we act on this mission.

There is wide state-to-state variation in the make-up of staff and the duties in the LMI office. It is intended that these few paragraphs and attached references provide the reader with a greater understanding of the comments which follow.

The views expressed in these comments are solely those of the author.

Attachments

Chronology of Selected Publications based on Linked Administrative Records and Administrative
Records Linked to Survey Research
Research and Planning, Wyoming Department of Workforce Services

Tracking University of Wyoming Graduates Into the Wyoming Work-force, September 1995
Quarterly wage and employment information, 1983-1993 Graduates, UI wage records

Under the Lamppost: Report to Workforce Development Council on Wyoming Institutions of Higher Education
Program Completers, November 1998
**Classification of Instructional Programs, Completers by degrees, 1997 Calendar year/ 97-98 Academic
year, UI wage records**

Workforce Development and Community College Outcomes, When Does Training Pay Off?, Wyoming Labor
Force Trends, July 2001
Workforce Investment Act, Casper College, Employer Survey, wage records

The Effects of a College Degree on Wages: The Different Experiences of Men and Women, October 2001
Degree attained: Bachelor's v. no degree, Jobs requiring college degree, wage records

Where Are They Now? Wyoming Community College Graduates' Labor Market Outcomes 2004, August 2004
**Students working in partner states, Retention of students, use of administrative records and survey
research**

Cooking Up a Career: Examining the Outcomes of a High School Training Program in the Culinary Arts and
Hospitality Management, August 2005
**Wyoming Hospitality Alliance Mentoring, Long-term career opportunities in Leisure & Hospitality
industry, Administrative records and survey**

Wyoming Community College Graduates' Labor Market Outcomes 2005: An Administrative Records Approach,
April 2006
**Employment/Enrollment Outcomes, Occupational-Technical degree programs, Data-Sharing
Agreements, Partner states, wage records**

Retention of Nurses in Wyoming: Part II, August 2008
**Longitudinal analysis of administrative records linked to survey, Nearing age of retirement, Healthcare
workplace quality, Quantitative and qualitative analysis of nursing experience**

Post-Injury Wage Loss: A Quasi-Experimental Design. Prepared for The National Institute for Occupational Safety
and Health (NIOSH) Mountain and Plains Education and Research Center (MAP ERC). May 2009
**Labor market, wages, employment in Wyoming, turnover, demographic characteristics, workers
compensation claims**

Job Attainment and Wages of Wyoming Vocational Rehabilitation Participants, Wyoming Labor Force Trends,
February 2010
VR successful closures, Wage records database, Longitudinal outcomes

Chronology of Selected Publications based on Linked Administrative Records and Administrative
Records Linked to Survey Research
Research and Planning, Wyoming Department of Workforce Services

Driven by Demographics: Examining Employee Exits in State Government, Wyoming Labor Force Trends,
December 2010
> **Linking state government occupations to turnover, wage records**

Health Care Workforce Needs in Wyoming: Advancing the Study, Occasional Paper No. 6, Fall 2011
> **Commuting impacts, linking health care professional licensing to wage records**

Monitoring School District Human Resource Cost Pressures, Fall 2013
> **Educational Services salaries in Wyoming and Surrounding states, Professional Teaching Standards
> Board, Department of Education, staffing linked to wage records**

Effects of decline in teen drivers, Wyoming Labor Force Trends, September 2014
> **Graduate driver's license, Job Skills Survey, UI administrative records**

Nurses Returning to School, Wyoming Nurse Reporter, Fall 2014
> **survey sample, Job satisfaction, Motivation to continue education, Employer discouragement, Time
> constraints, Nurses nearing retirement age**

Higher Wages and More Work: Impact Evaluation of a State-Funded Incumbent Worker Training Program,
Wyoming Labor Force Trends, January 2016
> **new business recruitment, enhance employee wages, reduce turnover, enhance profitability**

Impact Evaluation of a Wyoming Employment Job Assistance Program, Labor Force Trends, January 2016
> **Increase wages, decrease government assistance, JobAssist Program, self-sufficiency, employment
> outcomes**

Wyoming Hathaway Scholarship Program: A Workforce Outcomes Evaluation of a State Merit-Based Scholarship
Initiative Using Administrative Records. Casper: Wyoming Department of Workforce Services, Research &
Planning, July 2016
> **Enrollment, financing, demographics, postsecondary education, employment, wage records, program
> evaluation, turnover, continuous employment**

This is the response to the "Request for Comments for the Commission on Evidence-Based Policy Making," Department of Commerce [Docket Number 160907825-6825-01] published in the Federal Register Vol. 81, No. 178, September 14, 2016, pages 63166-63168.

The federal register notice asks for examples of "successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state …"government without asking for information about how federal policies work to create challenges to evidence-building. Both success and its opposite have to be analyzed using the case study approach to identify features that must be true for successes and that must not be true for failure. Having been involved as a professional researcher in state government for 38 years, specifically working in state-federal Labor Market Information (LMI) offices, I have been a participant observer in the development, implementation, and evaluation of labor programs. With this in mind, I will attempt to address the overarching question of defining challenges to the development of evidence-based policy and institutionalized counter-productive federal policies.

In certain domains, state agencies play a key role in implementing federal policy and serve as the data collection and management entity for related administrative records. One such domain is the distributed workforce development system which is overseen by the U.S. Department of Labor (DOL), but implemented by states (and for certain components by sub-state entities). Consequently, unless labor program delivery is federalized, any attempt at evidence-based transformational federal policy will need to take the states into account and incorporate policy and practices that invest in them as partners with the federal government.

One, at least partial success, is the Worker Profiling and Re-employment Services (WPRS) program. WPRS was formally introduced into the Unemployment Insurance (UI) system through federal legislation in 1993. DOL's Employment and Training Administration (ETA) designed the WPRS program as a result of rigorous research based on experimental techniques. Under the program, state UI agencies provide focused re-employment services for unemployed workers covered by UI. UI claimant eligibility for re-employment services is determined in most states through an ETA guided, state developed regression model in which the dependent variable is the probability of running out of weekly UI benefit payments. The research upon which this program was designed indicated that reduced taxes to employers and an earlier return to employment for workers than could otherwise be expected were reasonable expectations under WPRS implementation.

However, in 2007, the General Accountability Office found that: "The national data on the worker-profiling initiative is of very limited usefulness as a measure of program …, outcomes, and effectiveness. Many of the data are not usable because of inconsistent or incorrect reporting, and neither Labor nor the states…use the data for evaluating the worker-profiling initiative. …, even if all the outcomes data were reported consistently and accurately, these data cannot, by themselves, be used to measure the impact of the program. …, by requiring the submittal of data that are of such limited reliability and value, Labor is potentially wasting both its own and the states' resources. Finally, absent information

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about the program's current impact, Labor may find it more difficult to make decisions regarding the best means for returning the unemployed to work more quickly." (GAO, 2007, p. 30). Wandner points out that the George W. Bush administration actively sought to eviscerate research and evaluation initiatives within ETA (Wandner, 2010, Ch. 6). Given the time frame for the Bush Presidency, this could account for the demise of data quality in the management of the WPRS program. However, there is little evidence that the current administration has done anything to remedy the situation. ETA's current *Five-Year Research and Evaluation Strategic Plan; Program Years 2012-2017* fails to identify the WPRS program at all, see https://wdr.doleta.gov/research/FullText_Documents/ETAOP_2013_21.pdf . While one administration actively seeks to eliminate the role of ETA's research capacity, its successor seeks the expansion of the role of government. Even under the latter situation, the quality of the underlying WPRS data systems within UI, needed to sustain the administration of evidence-based policy, deteriorate. In this case, it can be suggested that the issue of data quality is to some degree a consequence of partisanship. However, the absence of data system improvement under the current administration suggests that the more reasonable explanation for neglect is bureaucratic inertia.

It is not the function of bureaucracy to manage based on empiricism, but to carry out those activities which secure its existence and expand its scope. The Workforce Investment Act (WIA) of 1998 required the states to conduct rigorous program evaluations (including, the statute indicates, the use of control groups) of the federally funded training programs they administer. However, ETA cannot identify a single example of a state-conducted WIA training program evaluation. The Workforce Innovation and Opportunity Act (WIOA), signed into law in July 2014, replaced WIA and contain the same requirements for state administered program evaluation, and their coordination with the Secretary's national program evaluation undertakings. Up to this point in the implementation of WIOA, state program evaluations and the Secretary's coordination of them remain inert and symbolic.

Despite public endorsement of making "data driven" decisions, there is little understanding of the program uses of evaluation and therefore little demand for evidence-based policy making and high quality administrative data within the state employment and training system. As a result, it is important to separate the symbols of program management from practice within UI state programs. The priorities, business rules, and processes that generate basic UI administrative data serve as inputs to UI program management. Understanding the application of UI business rules is essential to the appropriate use of these administrative data in a research context.

In recent testimony before House Ways and Means, a spokesperson for the National Employment Law Project outlined one dimension of UI program integrity. "For the one-year period ending June 2015, 10.3% of UI [claim] payments were overpaid … one out of three…overpayments were found to be fraudulent."(Conte, 2016, p. 8) The remaining claim overpayments were attributable to agency and/or employer tax reporting error. The integrity of UI claims is grounded in UI wage record employer tax reporting. Given the level of non-fraud based error in claims payments, we begin to gain an understanding of the need to edit wage records prior to their statistical use.

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From the standpoint of administering the UI program, the integrity of UI administrative data is problematic. Moreover, with rare exception, state agencies managing WIOA programs do not recognize a vested interest in research evaluation of the uses of UI data and, therefore, substantial data quality problems can be expected. The research incentives associated with profiling or investment in evaluations (whether conceived of in the form of financing, sanction, or human resource research credentials) is insufficient at either the state or federal level to argue that all has been done that would justify legal steps broadening access to administrative data or creating concentrations of linked databases. The system as it now stands neglects plentiful opportunities for evidence-based policy making. However, it exhibits little will or ingenuity that would demonstrate that it has exhausted opportunities as justification for moving to the next level of data access. The current administration should take that step. It should demonstrate that the data in UI administrative records to which it seeks access is of the highest reasonable quality for state administration of the UI system before it is exploited as a universally available tool in guiding policy development. Data of unknown quality and bias made broadly available disregards threats to the comparability of interstate replication.

State UI administrative records make up the bulk of "federal data" in the National Directory of New Hires (NDNH). Employer payroll records and worker wage records represent the interface between the workforce and industry, mediated by UI administrative records collection, management and storage systems, grounded in an economic classification system implemented by state LMI offices. If the user of these data does not understand the composition of the workforce, industry behavior, or the business rules for managing a system of UI administrative records, the researcher's capacity to use wage records as a theoretically relevant tool is compromised.

Each industry exhibits different trends and seasonal employment patterns. UI reporting bias is not distributed evenly across industry types and firm sizes. UI administrative data collection and management systems vary from state to state. This means that locality is a relevant variable both from a labor market standpoint, and from what is represented in state UI administrative records systems. State specific dynamics of UI administrative records limit comparability in ways that are not recognized, catalogued, or accounted for in the NDNH.

State research offices that acquire UI administrative records for statistical purposes edit UI claims, employer payroll records, and wage records earnings for individuals. UI administrative records are reconciled and reporting errors corrected before these administrative records are used for statistical purposes.

State agency researchers obtain copies of UI administrative records at several points after the tax filing date to ensure comprehensiveness. This is not the case for UI administrative records making up the NDNH -- for which the administration has been seeking broader researcher access (U.S. Department of Health and Human Services, 2017). UI staff in Wyoming sent the second quarter of 2016 wage records to the NDNH at the end of September 2016. This is the only copy of the wage records file NDNH will receive. However, for R&P's research purposes, the last download of 2016Q2 will take place in the

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fourth quarter of 2017. Given the inferior coverage and quality of the NDNH UI files, it is clear that at some point an investment will need to be made in data quality (along with state-to-state uniformity) if UI administrative databases are to reliably serve research purposes.

Building quality into state UI administrative records requires the development of a state UI and WIOA research agenda and funding if the states are to invest in data quality. The current level of funding and state incentive to invest in data quality to prevent UI claims overpayment is insufficient to the task. On the other hand, if the federal government and the states have a common research cause, data quality stands a greater likelihood of being addressed.

Perhaps the most important social intervention in this country is the state domain of education. Federal investment of millions of dollars over the past decade in state-based evidence building for purposes of state level interventions has produced very little in published results. The U.S. Department of Education (ED) began investing in state educational entities analysis of the longitudinal student records in 2005. State Longitudinal Data System (SLDS) competitive awards encourage quasi-experimental design in tracking student cohorts from pre-school through post-secondary and into the labor market using UI wage records. The Senate approved another $34.5 million for the SLDS effort in FY 2017 (S. Rep. No. 114-274, 2016, p. 197). ED funds state collection and organization of education data but requires little in the way of grantee publication of analysis. The fact that grantees publish so little represents an institutional-financial relationship and set of expectations for state performance sustaining the culture the Commission is attempting to transform. Without inquiry into the means by which federal agencies foster the appearance of decision-making, informed by empirical analysis, without holding grantees accountable for the substance of published analysis, the Commission would be ignoring the problem it is charged with addressing.

Dr. Mark Schneider, Commissioner of the National Center for Education Statistics (NCES) from 2005 to 2008, in 2012 testimony before the House Committee on Education and the Workforce, responded to the following question relating to the performance of grantees under the SLDS program:

> "Chairwoman Foxx. Okay. We are going to try one more round. Let us go back again to looking a little bit at the state and what the states are doing now. And if you all might respond to this; what factors are there that make up the high-quality state – state longitudinal data systems? And what factors are missing from the low-quality state data systems?
>
> I think, Dr. Schneider, you said that some states are doing very well; others are doing it, but are not publishing it. Do we know why there are those problems with the states? …
>
> Mr. Schneider. Yes…
>
> I think one of the mistakes that we [NCES] made, and remember, we are $700 million into this process, was that we did not have a use requirement. And there is a long history on this. There was no use requirement on this data.

4

So, what has happened is that we have made this huge investment in these data warehouses, which I think of – I sometimes call them data mausoleums and going back to many years ago I think of them – you remember there was something called the roach motel. You know roaches checked in, but they never checked out. So, sometimes I think these data systems as the equivalent. You know data checks in and we never see them again.

So, we spend a lot of money on building these and actually very, very few concrete products that actually can and should help us inform consumer choice … It is a long complicated process often because of the politics of data. It is not that the data do not exist. It is that the data do exist. And sometimes the results [of UI wage records matches] are not – do not make people all that happy." (Higher Education and Workforce Training, 2012, p. 49)

The absence of published analysis from SLDS grantees is attributed in this testimony to the fact that NCES grants did not require them. However, the failure to include a requirement for publication in grant awards does not explain why states have not voluntarily published cohort analysis. One barrier to publication, testimony suggests, is that the results of wage records outcomes do not always conform to the level of positive market return on investment that institutions of higher education publicly ascribe to the value of a degree. The question is: Why should expected market returns govern what SLDS grantees publish?

Personal interviews with ED's SLDS grants management and ETA staff confirm House subcommittee testimony regarding the paucity of state-sponsored published scientific analysis. A literature search conducted after the 2012 House hearing produce few substantive works.   However, some states are beginning to publish "dash boards" or report cards containing employment and earnings outcomes for selected cohorts of graduates in non-experimental formats, with little narrative or explanatory analysis.

National SLDS/Workforce Data Quality Initiative (U.S. DOL grants to link student and training participants to wage records-based outcomes) grantee conferences provide anecdotal illustrations from colleagues regarding SLDS initiatives in publishing UI wage records outcomes conditioned by political agendas. Wage record dashboards often lack methodological explanation of the limitations of the data, or contextual information about underlying market conditions which serve as alternative explanation for educational outcomes in the labor market. Transparency is hampered by limiting publication to graduates, rather than all students, and/or the publication of outcomes for all of higher education combined, rather than for each institution separately. Too often, tabular data is presented with computational enhancements as promotional material without appropriate cautions to the consumer about the limitations of the data. In many cases, informed consumer choice is displaced by marketing gimmicks and the trappings of accountability rather than the genuine article.

SLDS grants do not require the functional separation of state statistical entities and reporting from the authority of state educational program management. Therefore, it is not difficult to find anecdotes about grantees using SLDS funds to promote educational services. However, it is very difficult to find

publications regarding objective evaluation of labor market outcomes (or even analysis restricted to student outcomes within the educational domain) associated with student investment in education. Even if SLDS grantees chose objective reporting about the labor market, they are unlikely to have access to wage records for the entire market or even begin to understand the underlying market dynamics needed to provide contextual information. The design of the SLDS effort prevents it from obtaining and providing the counter factual information to establish the meaning of workforce outcomes. Grant awards to state educational agencies whose goals are the expansion of educational programs are often used to secure a growing perimeter of influence through the use of dash boards regardless of the value of these tabulations to students, employers, and communities. The barriers to evidence-based policy-making are often barriers created by federal policies aimed at creating the appearance of data driven choices at the expense of substantive analysis.

Whether public or private, many providers of training services are formally organized bureaucracies and as such operate under a common set of organizational imperatives. Regardless of stated motivations, all bureaucracies exercise efforts at boundary control by limiting what is known publicly about them, seek autonomy in establishing direction, and attempt to ensure sustainability by constantly expanding the niches they occupy. One explanation for the political control exercised by SLDS grantees over what is made publicly available in the form of student wage records earnings is that they are bureaucracies conforming to organizational imperatives. The available evidence on this point is sketchy but of sufficient quality, coverage, and importance to suggest that further study of this matter is needed if evidence-based policy making is to inform student choice about education and public policy.

WIOA rules expand upon the strategy of providing UI wage records to SLDS grantees by explicitly supporting state UI agency provision of UI wage records to the providers of training services in order to facilitate training provider reporting on student outcomes as dash boards (Workforce Innovation and Opportunity Act, Final Rule, 2015, p. 971). Without functional separation at the state reporting level, DOL and ED have begun actively endorsing an institutional conflict of interest at the heart of federally funded workforce development programs.

Formally organized bureaucracies attempt to ensure their continued survival by gaining control of resources. In the case of training providers, one resource over which control is important is expanding enrollment. The imperative to expand as an organization may not always be consistent with the need for objective wage records outcomes information to inform student career decision making. Placing these two functions in the same organization necessarily constitutes a conflict of interest even if no training provider ever consciously manipulates data for the benefit of the training provider organization. For this reason, sound statistical practice requires insulation in the form of functional separation between those entities reporting statistical results from those entities providing training and educational services. By fostering the appearance of impropriety federal entities implementing WIOA institutionalize the kind of culture in workforce development about the nature of "evidence" that is counter-productive.

If evidence-based policy making is to become anything more than a "pop" fad among academics, the Commission needs to recognize the ways federal agencies implement programs without statistical standards, and at the same time cultivate a legitimizing appearance. Implementation requires WIOA provider dash boards computed in a standard manner. However, there is no federal or state quality control oversight and no common presentation format for students and dislocated workers to choose from in selecting training options. Thus, even if there were quality controls and edits for wage-records, the purpose of common calculation is off-set by non-comparable computations and presentation from provider to provider.

Our point of arrival with the implementation of WIOA seems much like the destination of the Worker Profiling and Re-employment Services (WPRS) program GAO documented in 2007. In WIOA, data is managed largely by non-statistical entities and as such, it is as likely to be found "… of limited usefulness … Labor is potentially wasting both its own and the states' resources." In sum, we continue to see federal government policy multiply the non-scientific use of data for appearance value. The lack of access to data is not at this time the most important barrier to improved policy. The barriers to improved policy can be understood by way of case study. In many instances there is ample data available for experimental and quasi-experimental design. There is simply no connection between experimentation, on-going study, and the functioning of the bureaucracies that presently administer programs. If the incentives embedded in the bureaucracy are not understood and addressed, then the attempt at transformation through evidence building will merely rival the status quo and have much less chance of impact. Who benefits from a clearinghouse or expanded access to the NDNH when administrative data are of suspect quality and bias? Of what value is a clearinghouse and expanded access to databases, when at the same time existing programs, e.g. WPRS, and new programs, WIOA, are managed in ways antithetical to evidence-based policy making? It is not the successes alone that we need to understand but the failures.

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0044
Comment on FR Doc # 2016-22002

Submitter Information

Name: Florence Thompson

General Comment

STOP THE SOCIAL ENGINEERING!
The Total Information State, as in Evidence-Based Policymaking, is designed to enslave the entire populace, beginning with children. Encrypting the personal data does not render it harmless. The state has no right to maintain dossiers on citizens. Personal data should not even be collected, much less be maintained forever and used to limit freedom of choice of individuals through "best practices" (which become the "only practices.") This is a mechanism of social control and an egregious violation of our rights. It is also a very unwise policy decision, as a society evolved by diverse individuals developing and functioning freely in their own self-interests is much stronger, more vibrant and successful than a society of individuals engineered and moulded by the state, no matter how smart the elitists at the top think they are.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0045
Comment on FR Doc # 2016-22002

Submitter Information

Name: Gary Coe

General Comment

Communism/socialism in action. Dump this horrible idea.

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0046
Comment on FR Doc # 2016-22002

Submitter Information

Name: Charles Swasey

General Comment

I value student privacy and student autonomy over personal and confidential data.

Therefore, I oppose and restructuring of power that would place the federal or corporate organizations in charge of accessing the personally identifiable information of citizens of any age, for any reason, without the express written consent of the citizen or his or her parents.

Just say no to unit record databases.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0047
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

stop mandating collection of my children's "data". I believe it will limit my freedom of choice because "others" will decide what best works for everyone by analyzing all that "data". The data being collected is private and none of anyone's business. If I am not the person in "of the people, by the people, for the people" then I am enslaved by those that think they're above me and my children. Stay out of our heads!

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0048
Comment on FR Doc # 2016-22002

Submitter Information

Name: Oak Norton

General Comment

How about a commission on unintended consequences? All the "evidence" in the world doesn't always make something the right choice at all times for all people. Local control and parental rights are constantly being trumped by people who set policy but are removed from the local level where these policies hit home. Or should I say, hit homes? Parents need to make informed decisions based on evidence, but also based on what they know is best for their children. Informed consent should be the goal and not broad policies set by those who can't foretell the consequences they didn't intend.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0049
Comment on FR Doc # 2016-22002

Submitter Information

Name: Matthew Parks

General Comment

As a parent, I believe strongly that parental consent should be pro-actively required before any institution is authorized to access a child's data of any kind. The parents aren't meant to serve the government, but the government is to serve the parents and it is a *parent's* individual decision whether or not the government's services are welcome.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0050
Comment on FR Doc # 2016-22002

Submitter Information

Name: Phil Jensen

General Comment

We need to stop invasive government collection of personal and private data on our children. The government cannot say as is obvious from the WikiLeaks situation. No more collection on our children. Thank you.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0051
Comment on FR Doc # 2016-22002

Submitter Information

Name: Maryann Christensen
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  Murray, UT, 84107
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General Comment

EEEEEEEK! Violating family and child privacy is NOT OK! If parents want to share data, I have no problem with that, but it should be BY CONSENT ONLY!

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0052
Comment on FR Doc # 2016-22002

Submitter Information

Name: Linda McCay

General Comment

I value parental consent, prior to having governments or research groups access a student's or a citizen's unit records. I am against a federal unit record database.

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0053
Comment on FR Doc # 2016-22002

Submitter Information

Name: Robert Holtzclaw
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   Jonesboro, GA, 30236
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General Comment

Parental consent should be required for any government intrusion.

PUBLIC SUBMISSION

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0054
Comment on FR Doc # 2016-22002

Submitter Information

Name: Amy Anonymous

General Comment

No information should be kept or given out without prior parental consent.

PUBLIC SUBMISSION

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0055
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Of course, it is more efficient to have every bit of info on everyone from cradle to grave, including behavioral twitches of eyebrows recorded by computer cameras, where an individual is at any point in time. This invaluable information permits those with access to it to control the minutiae of our lives.
The problem is that it is an un-Constitutional invasion of privacy. The Founders did not care about the efficiency of controlling humans, only their freedom to make their own choices, their own self-responsibility, individual privacy, property ownership without interference from government nor big business. They were right. Free people are not monitored moment to moment or at all. The Constitution is not an out-of-date document. It speaks to the 21st century because The Founders wisdom and knowledge about failed governments is even more important today than it was pre-electronic monitoring.
My DNA and especially that of my newborn is not for manipulation ofour lives, by anyone but the individual to whom it has been given by their God.

I know it is galling to the modern globalist elite that men with quill pens remain wiser than they are despite all of their technology. Their only defense is to pooh-pooh them (undermine) and prevent our children from ever knowing that this country's foundations rest on the exceptional and far more educated minds of Washington, Adams, Madison, to our everlasting benefit.

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0056
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

There must be parental consent prior to having government or research groups access a student's or a citizen's unit records.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0057
Comment on FR Doc # 2016-22002

Submitter Information

Name: Tammy Erickson

General Comment

I would like too have to have parental consent prior to ANY information being collected on my child or myself for that matter!

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0058
Comment on FR Doc # 2016-22002

Submitter Information

Name: Jesse and Sarah Dean

General Comment

We wish to register our opposition to standardized record-keeping of all children's behavior, health or educational progress.

I understand that in the 'big picture' this information could be valuable to researchers. However, our constitution does not exist to make life easier for those conducting research or formulating government policies. Our constitution exists to protect the independence and liberty of the individual from governmental overreach.

As benign as your motives might be, as parents whose first obligation is to protect our children, we must ask ourselves, "How might this information be misused in the future?" In the face of budget cuts, or changing social mores, could this data lead to limits on health care treatments? Could this data be used to direct my child or grandchild into specific career paths based on the outcome of standardized tests rather than personal drive or merit?

Data is power. We oppose increasing government power over citizens without the consent of the individual.

Sincerely

Sarah and Jesse Dean

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0059
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I am very concerned about this data collection and how it might be used. I think at the very least there needs to be parental consent before data is collected on children.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0060
Comment on FR Doc # 2016-22002

Submitter Information

Name: John Hofker
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 Athens, TX, 75752
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General Comment

I am absolutely opposed to gathering information on children - through electronic means or any other method.

Once information is gathered, it can be used by anyone for any purpose.

We have seen this over and over and over throughout history.

Once you have the information, you can control their future.

This is exactly how this information will be used - control.

Education control, career control, future control.

It always ends the same way: Hitler, Stalin, Mao - all said, "We just want to get some information. We're just trying to help the children." It never ends well.

I am absolutely opposed to gathering information on children: electronic or otherwise.

John Hofker

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0061
Comment on FR Doc # 2016-22002

Submitter Information

Name: Marianne Dwyer

General Comment

Parents have the responsibility to ensure their children's safety. Parental consent should be required before research groups gain access to student records.

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0062
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I believe that student privacy is very important, and that consent is important, and that a move to a database of individual unit records is unacceptable in our free country.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0063
Comment on FR Doc # 2016-22002

Submitter Information

Name: Ginny Meacham

General Comment

I prefer a child's records be stored in one secure file in their respective school district, and that parental consent be obtained prior to that data being viewed by anyone. We need to allow parents the control over information about their children.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0064
Comment on FR Doc # 2016-22002

Submitter Information

Name: Sarah Anonymous

General Comment

I value parental consent, PRIOR to having governments or research groups access a student's or a citizen's unit records. Every citizen has the right to privacy. In the case of minors, that right to privacy extends to the stewardship of the parent. Without such a step in place, it leaves a minor unprotected and open to data mining and potential data and privacy misuse for a secondary or third party's gain.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0065
Comment on FR Doc # 2016-22002

Submitter Information

Name: Ed Felt

General Comment

This increases the possibility of another party, illegally, or through means of changing current law, to access data that students or minor student's parents, do not give permission to said party access.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0066
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

To Whom it Concerns,

Data mining, or any sort of data collection having to do with a minor child, with out the consent of a parent, is an invasion of privacy. Period.

Operating under a shroud of secrecy isn't necessary, when you're dealing with legitimate purposes. State your case, and then get parental consent before any data collection.

Regards.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0067
Comment on FR Doc # 2016-22002

Submitter Information

Name: Susan Wilcox

General Comment

Census for genealogical purposes is a good thing and should be thorough. But using that information for any other purpose should be banned.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0068
Comment on FR Doc # 2016-22002

Submitter Information

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   Nashua, NH, 03064
Email: dianerosesekula@gmail.com

General Comment

Teachers give tests, and look at, "data" in the form of knowing their students and looking at their work. Data is helpful, standardized tests are helpful. However, this colossal takeover of data-informed education does not work for children and is often not much more than a thinly disguised effort to cash in on government money (amongst other things). As a teacher, the reality of collecting information on children that is often not accurate and can be dangerously subjective and then sharing it with others in a way that although promised as being safe, has no guarantees is shameful in a country such as the United States. (Do children always try when they are sick of sitting still and sick of being tested? If their parent is sick? If they are hungry? Are the questions good questions? Do they assess what they are supposed to? Are they appropriate for English Learners and students with an IEP?) Furthermore, the potential implications of labeling and mislabeling children through inaccurate and insecure data include civil rights violations. I saw it happen multiple times myself as a teacher in an, "Innovation Lab Network" state (NH). I am beyond disgusted. Somebody needs to listen to teachers and parents. We are already experiencing major problems (lawsuits etc.) because of this. You simply do not collect data on children (who turn into adults) and attach it to them

permanently, or make decisions based on data that is not controlled at the local level; no matter what you believe the benefits are, in a free country.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0069
Comment on FR Doc # 2016-22002

Submitter Information

Name: Nicole Truhe

General Comment

[Docket Number 160907825-6825-01], Commission on Evidence-Based Policymaking Comments
Thank you for the opportunity to provide a response to the Department of Commerce's September 14, 2016 Federal Register Request for Comments regarding the Commission on Evidence-Based Policymaking.
Data Infrastructure and Access
Question 5. America Forward Coalition members share a commitment to using data to track progress and ensure accountability. That is why we are particularly supportive of the focus of the Commission on developing a strategy for increasing the availability and use of data in order to build evidence about government programs. The availability and use of administrative data is of particular interest because, as we know from our members' experiences, it is extremely important for engaging in meaningful evaluations and for driving down the cost of randomized controlled trials. In addition to availability and use of data, our Coalition members have identified other challenges associated with data in the context of building the evidence of what works. These challenges include: antiquated data systems, allowing specific datasets to "speak to" each other, need for state or national database, service delivery and untrained government workforce.
Data Use in Program Design, Management, Research, Evaluation, and Analysis
Question 15. Using the example of two administrative datasets, the National Directory of

New Hires and Unemployment Insurance Wage Records, subject to appropriate privacy protections, the federal government should amend laws and regulations to permit federal, state, and local education and workforce agencies, state and local workforce boards, nonprofit organizations, social enterprises, and post-secondary institutions certified by the Department of Education for participation in Title IV of the Higher Education Act (HEA) to have access to the National Directory of New Hires and to Unemployment Insurance Wage Records. Access to such data could be used to help more rigorously evaluate the impact of a variety of programs and interventions funded by federal dollars.In addition to access to datasets, another barrier associated with the use of administrative data in marrying it with state, local, or provider collected data is the lack of established uniform definitions of metrics. By way of example, the Department of Labor, in consultation with the Departments of Education and Health and Human Services, should establish for all federal workforce, education and training programs a uniform definition of job placements, recognizing the changing nature of work in our economy, and an accurate methodology for calculating job placement rates of program participants.

Questions 16-19.Tiered evidence models and innovation funds have been authorized across different agencies and included in various issue areas to develop and build the evidence base of what works in education and social services. One example, the Social Innovation Fund (SIF), makes grants to experienced intermediary organizations that are well positioned within communities to identify innovative, evidence-based programs with potential for expansion in the areas of economic opportunity, healthy futures, and youth development. In total, more than 400 nonprofit organizations are being funded by the SIF to conduct diverse interventions and evaluate results through highly rigorous models. One challenge facing innovations funds like SIF and tiered evidence programs such as the Investing in Innovation program (i3) at the Department of Education is identifying a pathway to integrating and expanding approaches determined to have evidence of effectiveness under these funds in a manner that aligns with existing federal efforts to address national and local challenges. In fact, despite the SIF's widespread success and the bi-partisan support of i3, many federal agencies are unaware of the innovations supported by these funding streams that could help improve existing programs, yielding better outcomes for vulnerable communities. As the Commission builds out its priorities and scope of work, our Coalition suggests that you encourage federal agencies to adopt relevant data-driven programs/strategies with evidence of effectiveness currently supported by the Social Innovation Fund, the Investing in Innovation Fund and other similar programs whose evaluations, data, and experience of engaging partner organizations are of particular value to federal agencies tasked with providing effective services in the areas of economic opportunity, healthy futures, and youth development.

Thank you for the opportunity to submit formal comments on the work of the Commission on Evidence-Based Policymaking. We would be happy to provide clarification of any of the points raised or to provide additional information.

Nicole Truhe, Government Affairs Director, America Forward
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Nicole_truhe@newprofit.org (202) 780-4401

Attachments

November 2016 America Forward Comments on Cmsn on Evidence-Based Policymaking FINAL

[Docket Number 160907825-6825-01]
Commission on Evidence-Based Policymaking Comments

November 11, 2016

Dr. Katharine G. Abraham, Chair
Mr. Ron Haskins, Co-Chair
Commission on Evidence-Based Policymaking
U.S. Census Bureau
4600 Silver Hill Road
Suitland, MD 20746

Dear Chairwoman Abraham and Co-Chairman Haskins:

Thank you for the opportunity to provide a response to the Department of Commerce's September 14, 2016 Federal Register Request for Comments regarding the Commission on Evidence-Based Policymaking.

America Forward is a nonpartisan effort to unite social innovators with policymakers and advance a public policy agenda that fosters innovation, rewards results, catalyzes cross-sector partnerships, and translates local impact into national change. At America Forward, we champion innovative, effective, and efficient solutions that are helping to tackle our country's most pressing social problems. We do this through a network of more than 70 social innovation organizations, the **America Forward Coalition**, who are driving progress in areas such as education, workforce development, early learning, public health, pay for success, and national service in more than 14,500 communities nationwide, touching the lives of 8 million Americans each year. Our work is grounded in the real world, community-based experiences of these organizations and those they serve. This grounding, we think, serves us extremely well in not only identifying and championing policy solutions that will have real meaningful impact but our ability to point to tangible examples of these solutions in action, and to real people who these solutions have touched, sets us apart from other organizations.

At America Forward, we value innovation as an essential mechanism for improving our nation's efficiency and effectiveness in addressing social challenges. We view innovation as a cycle in which a pattern-changing idea is developed, assessed, tested, evaluated, and then refined (if it successfully achieves greater value) or abandoned (if it does not). For this cycle to work in the social policy arena, there must be clarity regarding the **outcomes** sought, **flexibility** to try new approaches and providers, a **measurement system** to determine if the approach is effective, and **resources that follow positive results**. Unfortunately, it is the rare government program that adopts and supports this cycle. Too often, outcomes are not clearly specified or focused on at all, approaches are too narrowly dictated and do not focus on prevention, the ability to measure results are severely limited, and resources are locked into specific providers or programs, even if others would yield greater value. As a result, the federal government may fund the same ineffective programs for decades without combatting the root cause of the targeted problem, costing taxpayers billions of dollars and undermining the potential of the people who the programs are intended to help.

The value of outcomes, flexibility, measurement, and paying for what works are all important tenets of moving towards an evidence-based policymaking environment Current federal policies and programs are in many ways misaligned with these. America Forward believes there are key policies that could be advanced to address this disconnect and our Coalition members are proof points of how these ideas could translate into real impact for individuals in communities across our country.

Data Infrastructure and Access
5. What challenges currently exist in linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

America Forward Coalition members share a commitment to using data to track progress and ensure accountability. That is why we are particularly supportive of the focus of the Commission on developing a strategy for increasing the availability and use of data in order to build evidence about government programs. The availability and use of administrative data is of particular interest because, as we know from our members' experiences, it is extremely important for engaging in meaningful evaluations and for driving down the cost of randomized controlled trials.

In addition to availability and use of data, our Coalition members have identified other challenges associated with data in the context of building the evidence of what works. These challenges include:

1. Even if data are collected and available, **antiquated data systems** particularly in the public sector make it difficult to efficiently access or engage in analyses of the data to measure outcomes and determine impact.
2. The challenges that millions of Americans face every day cut cross agencies and sectors. Allowing specific **datasets to "speak to" each other** is an important consideration for the Commission to explore. In order to adequately measure results and assess impact, data access and utilization must reflect the interconnected nature of the problems faced by Americans and the solutions being developed by organizations like those in the America Forward Coalition.
3. The mobility of Americans can make it difficult to track outcomes absent a **state or national database** that can be accessed and used for building evidence and strengthening efforts by providers and governments to be more evidence-based. All of this must be done with an assurance of privacy and confidentiality.
4. Given the long time focus on compliance with rules rather than achievement of outcomes, both the **service delivery and government workforce are not accustomed to working with data** for purposes of evidence determination.

Data Use in Program Design, Management, Research, Evaluation, and Analysis
15. What barriers currently exist for using survey and administrative data to support program management and/or evaluation activities?

Using the example of two administrative datasets, the **National Directory of New Hires and Unemployment Insurance Wage Records,** subject to appropriate privacy protections, the federal government should amend laws and regulations to permit federal, state, and local education and workforce agencies, state and local workforce boards, nonprofit organizations, social enterprises, and post-secondary institutions certified by the Department of Education for participation in Title IV of the Higher Education Act (HEA) to have access to the National Directory of New Hires and to Unemployment

Insurance Wage Records. Access to such data could be used to help more rigorously evaluate the impact of a variety of programs and interventions funded by federal dollars.

In addition to access to datasets, another barrier associated with the use of administrative data in marrying it with state, local, or provider collected data is the lack of established uniform definitions of metrics. By way of example, the Department of Labor, in consultation with the Departments of Education and Health and Human Services, should establish for all federal workforce, education and training programs a **uniform definition of job placements**, recognizing the changing nature of work in our economy, and an accurate methodology for calculating job placement rates of program participants.

16. How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?
17. To what extent can or should program and policy evaluation be addressed in program designs?
18. How can or should program evaluation be incorporated into program designs? What specific examples demonstrate where evaluation has been successfully incorporated in program designs?
19. To what extent should evaluations specifically with either experimental or quasi-experimental designs be institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?

The federal government has the opportunity to encourage the use of low-cost Randomized Controlled Trials (RCTs) as well as the use of quasi-experimental designs, which do not require random assignment, thereby ensuring that services are not denied to those who need them, but maintain control and experimental group rigor. There are a handful of examples of federal programs that incorporated program evaluations into their program designs and that experience should be learned from and replicated across a larger group of programs and funding streams.

Tiered evidence models and innovation funds have been authorized across different agencies and included in various issue areas to develop and build the evidence base of what works in education and social services. One example, the Social Innovation Fund (SIF), makes grants to experienced intermediary organizations that are well positioned within communities to identify innovative, evidence-based programs with potential for expansion in the areas of economic opportunity, healthy futures, and youth development. Since 2010, the SIF has made awards totaling $243 million with more than $528 million in private and non-federal matching funds. In total, more than 400 nonprofit organizations are being funded by the SIF to conduct diverse interventions and evaluate results through highly rigorous models.

One challenge facing innovations funds like SIF and tiered evidence programs such as the Investing in Innovation program (i3) at the Department of Education is identifying a pathway to integrating and expanding approaches determined to have evidence of effectiveness under these funds in a manner that aligns with existing federal efforts to address national and local challenges. In fact, despite the SIF's widespread success and the bi-partisan support of i3, many federal agencies are unaware of the innovations supported by these funding streams that could help improve existing programs, yielding better outcomes for vulnerable communities. As the Commission builds out its priorities and scope of work, our Coalition suggests that you encourage federal agencies to adopt relevant data-driven

programs/strategies with evidence of effectiveness currently supported by the Social Innovation Fund, the Investing in Innovation Fund and other similar programs whose evaluations, data, and experience of

engaging partner organizations are of particular value to federal agencies tasked with providing effective services in the areas of economic opportunity, healthy futures, and youth development.

America Forward stands ready to work with this important Commission to ensure that the concepts of evidence and outcomes are being used to develop policies and fund interventions. We believe this should become common practice at the federal, state and local level to address the current and future challenges we face as a nation.

Thank you for the opportunity to submit formal comments on the work of the Commission on Evidence-Based Policymaking. We would be happy to provide clarification of any of the points raised or to provide any additional information you request. Please do not hesitate to contact Nicole Truhe, Government Affairs Director of America Forward at Nicole_truhe@newprofit.org if you would like to discuss our recommendations further.

Sincerely,

Nicole Truhe
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PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0070
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anna Gray

General Comment

I feel that our government does not need to be involved in tracking personal data on our children and even adults. Parents have an innate and God-given responsibility to guard and guide their children in matters pretaining to their personal lives. Government's role should be to protect families, not intimidate in any way. Families are the lifeblood of a healthy society, and children should be valued, respected, and protected.

PUBLIC SUBMISSION

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0071
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

It is unconstitutional for the Federal Government to be collecting data on individuals without probable cause, for any reason. The fact that Congress is discussing and considering these types of data collection shows how far away from the intent of the Constitution the three branches of government have wondered. Please do not open this door. Leave it to parents guide and protect their children.

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0072
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I value parental consent before government or research groups have access to a student's unit records.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0073
Comment on FR Doc # 2016-22002

Submitter Information

Name: Mellany Lamb

General Comment

Nazi Germany had the same system in place to track people. Especially those whom they did not find desirable for their diabolical Aryan race. Do not implement this system that could be also used for evil. And how many times does technology err? Many and it is not without fault and can and will impede a child's future, if not ruin, forever.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0074
Comment on FR Doc # 2016-22002

Submitter Information

Name: Dennis McDonald
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General Comment

See attached file(s)

Attachments

how_to_combat_data_trutherism

the_case_for_data_literacy_and_federal_data
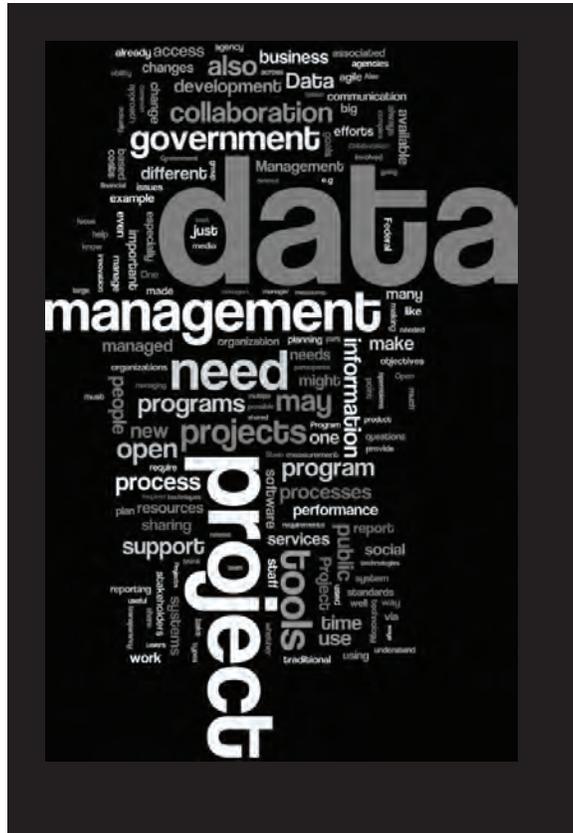
How To Combat "Data Trutherism"

Dennis D. McDonald, Ph.D.

How To Combat "Data Trutherism"

By Dennis D. McDonald, Ph.D.[1]

Oct. 21, 2016

Data trutherism

The recent Washington Post editorial When the facts don't matter, how can democracy survive? is a disturbing piece. In it author Catherine Rampell documents recent research showing that many Americans doubt the veracity of data provided by the U.S. government.

Rampell discusses this lack of trust in the context of politics and a tendency on the part of many Americans to view conspiracies around every corner. Many people don't believe the numbers the government agencies use day in and day out to guide their legislatively mandated policies and programs. Rampell concludes:

"This is how a democracy crumbles: not with a bang, but with data trutherism."

While it is probably well known that modern media allow people to surround themselves with information content and messaging that reinforces their beliefs and prejudices, it is rather shocking (at least to me) to see this "filter bubble" extended to basic facts and figures.

But perhaps it's not surprising. People like to pick and choose their media. We probably shouldn't be surprised that people pick and choose their numeric facts as well. If you're surrounded by people who are unemployed, for example, is it surprising that you might have some doubts about, say, the improvement of national unemployment numbers since Obama took office?

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1 *Copyright (c) 2016 by Dennis D. McDonald, Ph.D. Dennis (ddmcd@outlook.com) is an independent consultant located in Alexandria Virginia. Interests include project, program, and data management; market assessment, digital strategy, and program planning; change and content management; social media; and, technology adoption. Clients have included HHS CMS, U.S. Dept. of Veterans Affairs, National Academy of Engineering, the World Bank, Catalyst Rx, the National Library of Medicine, and the U.S. Environmental Protection Agency. Dennis' web site is located at www.ddmcd.com.*

The growing disconnect

One problem is, the greater the disconnect between government generated statistics and the people's belief in these numbers, the greater the potential disconnect between how government services are managed and the people that are served. Many federal agencies' delivery of services is triggered by various metrics. If the connection between the two is not understood, that means how the government operates is not understood. Such ignorance is bad for a democracy where institutions rely on "the consent of the governed" and the taxes the governed pay.

I wouldn't be the first to recognize a difference between ignorance about what numbers "mean" and whether some sort of conspiracy exists to "spin" the numbers. Unfortunately, ignorance and willingness to believe in an imaginary conspiracy theories do reinforce each other, especially when leaders arise who fan the flames of bigotry and intolerance.

Today the belief might be that unemployment statistics are being "cooked" to make the current Administration look good. Tomorrow, reliance on the U.S. Census to apportion legislative representation as specified in the Constitution might be questioned. The day after that? Massive refusal to pay taxes because so much money is being spent on helping people "who don't live in my neighborhood"?

Mistrust in basic government statistics can be a bad thing. This mistrust can't be understood and appreciated without knowing what other factors influence the mistrust. These other factors may include a lack of basic numeric literacy, a sense of resentment about one's status, willingness to respond positively to the appeals of a would-be demagogue, and the tiresome politicians' strategy of "running against Washington" (until they get to Washington, of course).

What's the solution?

I'd like to think that at least part of the solution for "data trutherism" is **education** (of the electorate) and more **transparency** (on the part of the government).

Solution #1: Education

Regarding education, that's only part of the solution given that one of the reasons we have reached the point of widespread data trutherism is the failure of our educational system to adequately prepare a large segment of the population to objectively understand and evaluate basic demographic and population statistics. This results in the dissemination of amazing errors like the AP's report on Clinton Foundation donations and State Department access. There a sample percentage metric was erroneously projected to an entire population. Such errors can be widely disseminated in no time at all. Even when sponsors admit the errors, the damage is done. Erroneous data have already been disseminated, digested, and redistributed.

In the face of incompetence such as AP's, one defense is an educated populace that learns to ask basic questions like, "Where *did* those numbers come from?" This is not a perfect solution, as reading about the LA Times' "tracking poll" and how its weighting factors can impact its results will attest. I understood that explanation since once upon a time I designed and manage surveys that involved segmented samples. Someone with less quantitative experience might find such explanations difficult to follow.

Solution #2: Government Transparency

This brings us to the need for greater government transparency so that more people understand the relationship between government services and how they are delivered. A step in this direction is the movement to provide more "open data" by many government agencies. Many open data programs now distribute data files along with analytical tools to help users interpret the constantly increasing amounts of data. That's a good thing.

Problem is, making data "open" and accessible is only the tip of the usage "iceberg," even when analysis and visualization tools are also provided. People have to make sense of the data and interpret it in ways that make it meaningful to them. For most people that means that the data has to be delivered in an understandable fashion. If they don't understand the basics of data analysis, making data "open" won't necessarily help them.

My belief is that, in the face of so much "data illiteracy," government agencies must do a better job of making the data it provides about its operations and its services more understandable. This means going beyond making data files and analysis tools available to providing consultative and educational services that help citizens understand data and what the data mean to them personally.

One challenge is that such "outreach" programs are expensive. I would argue that doing so should be part of standard descriptions of government agency responsibilities and not something done separately.

Dangers

There are dangers to involving the government in interpreting its own data. One danger is that government agencies will themselves "spin" the numbers to make themselves look good. How to combat this possibility? The first approach of course is the oversight role played by the legislative branch of government. While this can obviously be politicized, a transparently performed oversight role can help bring context and meaning to more people even when hearings and investigations are highly partisan.

The second approach gets us back to education: the more people know and understand about how government operates, the harder it is to "spin" the numbers, no matter who is doing the "spinning."

Just The Facts, Ma'am: The Case For Data Literacy -- and Federal Data

Dennis D. McDonald, Ph.D.

Just The Facts, Ma'am: The Case For Data Literacy -- and Federal Data

By Dennis D. McDonald, Ph.D.[1]

Nov. 10, 2016

Fear and uncertainty are powerful motivators. So it is for those who have over the past 8 years devoted untold hours to the promotion of government transparency and "open data" programs.

Given the recent election outcome, what will happen to the programs that were set up to make previously "hidden" Government data sets available to the public? What will happen to the standard-setting and data stewardship programs that prepare data for public consumption? What will happen to innovative data research and analysis programs designed to improve medical care funded by the Federal government programs?

I don't know the answers to these questions. There's always a lot of uncertainty when Administrations change.

I do suspect that Federally sponsored statistical, data access, and data analysis programs that don't have direct ties to legislation and program mission statements will be among the first to experience scrutiny, starting with a review of how much these programs cost the taxpayer.

Here are my biases:

1. The public has a right to know how tax money is being spent and to what effect.
2. Many "open data" efforts have not made a convincing link with the impacts their sponsoring programs or missions are supposed to be supporting.

Here are some comments and suggestions based on my own consulting and research:

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1 Copyright (c) 2016 by Dennis D. McDonald, Ph.D. Dennis (ddmcd@outlook.com) is an independent consultant located in Alexandria Virginia. Interests include project, program, and data management; market assessment, digital strategy, and program planning; change and content management; social media; and, technology adoption. Clients have included HHS CMS, U.S. Dept. of Veterans Affairs, National Academy of Engineering, the World Bank, Catalyst Rx, the National Library of Medicine, and the U.S. Environmental Protection Agency. Dennis' web site is located at www.ddmcd.com.

1. Data access programs should be designed from the ground up with usage metrics and impact measures in mind. If that means that money needs to be shifted from data preparation to performance and measurement, so be it. Better to have a few clearly meaningful data sets available with reliable usage and impact data than many more files that are being made accessible because they're easy to publish.
2. Government-sponsored data access programs need top-down support for provision of real-time and human engagement between government staff and the users and intermediaries who really interact with the data. Don't just toss the data out there, be prepared to explain what the data mean. Data access should not be treated as a PR function but as a service function that is directly integrated with how the government does its job, not something that is "added on" as a separately managed operation.
3. Given the current anti-government atmosphere, the private sector must speak up about the value of government collected statistics on unemployment, productivity, prices, and educational performance. We saw attacks in the recent national campaign on the trustworthiness of government statistics. "Big business" – as well as nonprofits and the research community -- must demand government accountability and the gathering and publishing of authoritative performance data that reflect the actual state of our economy as well as the performance of the programs we're funding. Otherwise we're flying blind.
4. Rising professionals with an aptitude for and understanding of data science and statistics must take some responsibility for explaining what data mean to the public, just as many younger scientists feel some responsibility for making sure the public understands what research is telling them. Having spent almost a decade as a "number cruncher" myself I personally understand the joys and fascination of data analysis, modeling, and interpretation. As more and more data are gathered and analyzed, though, we need to make sure the public understands and appreciate the basics of data and data analysis. Everyone needs to know what questions to ask when numbers start getting thrown around.

I'm not suggesting that everyone become a "data scientist." I am suggesting that basic data literacy is becoming just as important as learning to read and write.

After all, if we think, for example, that we can bring those manufacturing jobs back to the Midwest and the Rust Belt, how will we know in four years if we're being successful? And how do we convince people that the numbers are reliable?

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0075
Comment on FR Doc # 2016-22002

Submitter Information

Name: Tara Mancini

General Comment

See attached file(s)

Attachments

The National Campaign Comments for CEP_Final

![The National Campaign to Prevent Teen and Unplanned Pregnancy](logo)

Commission on Evidence-Based Policymaking Comments
Docket ID: USBC-2016-0003
Federal Register Number: 2016-22002

November 11, 2016

Dear Chair Katharine G. Abraham, Co-chair Ron Haskins, and members of the Commission:

On behalf of The National Campaign to Prevent Teen and Unplanned Pregnancy, thank you for the opportunity to provide comments for the Commission on Evidence-Based Policymaking. The National Campaign is a research-based, nonpartisan, non-profit organization founded in 1996. We work to improve the lives and future prospects of children and families by ensuring that all children are born into families committed to and ready for the demanding task of raising the next generation by reducing unplanned pregnancy among teens and young adults. The National Campaign works towards three ultimate outcomes:

- Reduce the rate of teen pregnancy by 50% by 2026.
- Reduce the rate of unplanned pregnancy among women age 18-29 by 25% by 2026.
- Reduce the disparities in teen pregnancy and unplanned pregnancy rates among racial/ethnic and socioeconomic groups by 50% by 2026.

Ensuring that young people have access to high quality, evidence-based teen pregnancy prevention education is one critical element in helping more young people delay pregnancy and parenting.

Given our long-standing commitment to research, evidence, and evaluation, we applaud the establishment of the Commission and appreciate the important issues it is tackling. We offer feedback on five of the core questions that the Commission will consider as it goes about its important work.

5. What challenges currently exist in linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

Not surprisingly, this type of endeavor raises many technological, ethical, and legal challenges, particularly as they relate to the balance between data access and privacy. One example that may be helpful to consider is the Longitudinal-Employer Household Dynamics (LEHD) program. We highlight this program for its ability to successfully navigate challenges associated with partnership formation, privacy protection, and data access while producing data that have greatly impacted policy.

6. Should a single or multiple clearinghouse(s) for administrative and survey data be established to improve evidence-based policymaking? What benefits or limitations are likely to be encountered in either approach?

While the Campaign strongly supports greater access to administrative and survey data, and a clearinghouse would be beneficial in theory, we believe such an effort would likely fall short of its goals and would be difficult to maintain. It is particularly difficult to imagine a single clearinghouse that gathered data across all policy domains in a way that adequately captured the complexities of these data and the programs they reflect. Rather, we believe those resources would be better committed to helping agencies maintain and enhance the data access they already have in place. In our experience, as these agencies try to meet growing data collection costs with fixed or even diminishing budgets, the availability of policy relevant data has been shrinking in critical ways. Key questions have been cut from surveys and online access to data has been curtailed. This is particularly true as it pertains to tabulating results for states or localities. For example, one can no longer use the online vital statistics data to look at key policy questions like state-level variation in Medicaid or WIC participation associated with pregnancy. It is also the case that some particularly rich data, such as the Medicaid Max files, are not available as de-identified files, thus making them difficult to obtain and utilize. This is in contrast to the Medicare data files, which are available on a de-identified basis and thus much more informative and widely used. There are likely similar limitations to data access in other policy domains as well. We believe that with relatively modest investments and vocal champions, data access could be greatly expanded.

15. What barriers currently exist for using survey and administrative data to support program management and/or evaluation activities?

We have found that for analytic results to truly inform programs and resonate with stakeholders, they must be reflective of the populations in need and the localities being served. Being able to disaggregate results by race/ethnicity, by socioeconomic status, and by state or even sub-state geographies is critical; yet data available through online access is increasingly limited in this regard, and, while data available through restricted access is often more complete in this regard, it is typically out-of-date by the time the lengthy application process is completed.

We are most familiar with vital statistics (and specifically the natality data), though we expect similar limitations could be found in access to other data systems as well. We consult the natality data continuously in our work and have especially appreciated the ability to analyze outcomes for various subpopulations of interest. Even so, we recognize that the availability of these data are subject to various pressures, including fiscal constraints and privacy concerns, and we worry that access is becoming more restricted—in particular, access to data that enables us to tabulate a variety of state-level indicators—something our state partners have found greatly informative.

One of the earliest examples of this restriction accompanied the public release of the 2005 natality data files—the raw data that researchers can analyze using statistical programs such as STATA. Beginning in 2005, these data no longer included any geographic identifiers, including state of residence. No longer able to tabulate state-level indicators using the raw data files, we

turned to NCHS's online customized table generator, "Beyond 20/20," and were able to continue tabulating most of our state-level indicators of interest.

Unfortunately, this online tool was recently discontinued. In its place, users are now directed to use "CDC Wonder"—another online table generator that is also greatly appreciated but much more limited. In particular, this tool does not enable the user to break out natality statistics for younger vs. older teens, does not provide state-level teen birth rates by Hispanic origin, and does not feature other critically informative elements such as interpregnancy intervals, receipt of WIC, or whether the birth was funded by Medicaid. These elements are available in the raw data files but, again, those files no longer contain state identifiers. One can special-request the full data with geographic identifiers, but this is a fairly lengthy process.

While we understand the need for strict procedures in releasing the full natality files, we believe there could be some middle ground—a publicly downloadable file that is more limited and contains at least some geographic identifiers but that suppresses values as needed to protect confidentiality. Alternatively, restoring the "Beyond 20/20" tool or modestly expanding the "CDC Wonder" tool would be of great value to researchers in the field of maternal and infant health.

16. How can data, statistics, results of research, and findings from evaluation be best used to improve policies and programs?

We offer two examples of tiered evidence grant making from the US Department of Health and Human Services (HHS) that use evaluation results to continually improve those programs.

The Teen Pregnancy Prevention (TPP) Program and PREP, like the Maternal, Infant and Early Childhood Home Visiting program, have been recognized as pioneering examples of tiered evidence-based policymaking,[i] and represent an important contribution to building a body of evidence of what works. They include high quality implementation, evaluation, innovation, and learning from results. The majority of funding from the TPP Program and PREP goes toward replicating program models that have been demonstrated to change behavior using well recognized high standards of evidence. A smaller portion of funding is reserved for research and demonstration projects to develop, replicate, refine, and test additional models and innovative strategies. This ensures that the menu of effective approaches to reducing teen pregnancy will continue to grow and be refined.

TPP Program and PREP grantees can choose from a list of effective models that have been identified through HHS' ongoing systematic review of the teen pregnancy prevention research literature. Since 2009, HHS has sponsored this review of the literature to help identify models with evidence of effectiveness in reducing teen pregnancy, sexually transmitted infections (STIs), and associated sexual risk behaviors. The review, conducted by Mathematica Policy Research, looked at hundreds of evaluations and initially identified 28 models that met Tier 1 criteria. That is, they must have been evaluated using a randomized controlled trial or quasi-experimental design, demonstrate changes in behavior (not just knowledge or behavioral intent), and results must be published in a peer-reviewed journal. The evidence review is updated periodically to capture the latest evaluation studies, and now includes 44 models.[ii] The wide

range of models on the HHS list of evidence-based programs gives grantees the flexibility to choose an effective approach that reflects their needs, population, and values, recognizing that what people in New York City may choose for high school age teens might be different from what people in Mississippi choose for middle school youth.

The TPP Program is a discretionary program administered by the Office of Adolescent Health (OAH) that was originally funded in FY 2010 at $110 million. It supported an initial cohort of 102 grants for a five-year period. Funded at $101 million for FY 2016, the TPP Program currently supports 84 competitive grants to a broad range of organizations and agencies serving youth in 39 states and the Marshall Islands. The grantees focus intensely on communities with the highest teen birth rates and the most at-risk youth. These five-year grants were awarded in FY 2015 and are contingent on continued appropriations. As noted above, approximately 75% of the grant funds are used to replicate program models that have already been shown through careful evaluation to change teen behavior (Tier 1), and approximately 25% of the funds support research and demonstration projects to develop, replicate, refine, and test additional models and innovative strategies to prevent teen pregnancy (Tier 2).

PREP, established in FY 2010, continues to be funded at $75 million in mandatory funding annually through FY 2017. Administered by the Administration on Children and Families (ACF), PREP supports states, communities, and tribes to educate adolescents on both abstinence and contraception to prevent pregnancy and STIs, and on other adulthood preparation topics such as healthy relationships, communication with parents, and financial literacy. PREP focuses on youth at greatest risk of teen pregnancy and geographic areas with high teen birth rates. For example, 34% of grantees targeted youth in foster care and 74% target youth in high need areas.[iii] Most of the PREP funding ($58 million) supports grants to states, territories, and tribes and emphasizes the use of evidence-based programs. Indeed, more than 95% of youth served by the state grants received one of the evidence-based programs from the HHS list referenced above.[iv] An additional $10 million supports competitive grants to public and private entities to develop, replicate, refine, and evaluate innovative strategies to reduce teen pregnancy and repeat pregnancies among youth up to age 21. These grants are subject to rigorous evaluation and reflect a "Tier 2" approach that supports innovation, fills gaps in existing programs for underserved populations, and expands knowledge about what works.

Both programs have invested heavily in the highest standards of evaluation and learning, as well as in innovation. OAH funded 41 rigorous evaluations during the first round of TPP Program grants that ran from 2010-2014.[v] The recently released findings—90% of which were from randomized control trials—indicate that four of the Tier 1 programs were found effective in changing behavior in additional settings and new populations. Among the Tier 2 grantees, 8 new, innovative models were found to be effective. Overall, these evaluations help build a body of evidence about where, when, and with whom specific models are most effective, and have expanded the menu of effective program models from which communities can choose. The results, along with implementation lessons, also help guide the second round of TPP Program grantees, and the many communities that look to the HHS list of evidence-based programs for guidance on what approaches will work best for them. Many of these findings and valuable implementation lessons were recently published in a special supplement of the *American Journal of Public Health*.[vi] PREP grantees have also been subjected to rigorous evaluations through

several different federally sponsored studies, and several studies have already been added to the HHS evidence review.

The commitment to evidence-based investments and innovation in the area of teen pregnancy prevention has been pivotal in changing the landscape. Before these two programs began, there were no federal investments dedicated to evidence-based teen pregnancy prevention programs; research in this area had primarily come from private investments, with few resources available to replicate or further evaluate the existing models.

19. To what extent should evaluations specifically with either experimental (sometimes referred to as "randomized control trials") or quasi-experimental designs be institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?

The National Campaign also offers PREP and the TPP program as two examples where evaluation—specifically randomized control trials and quasi-experimental designs—have been successfully incorporated into the program designs. These are two of the few government programs that use evidence and evaluation criteria throughout the grant life cycle.[vii] In fact, only about $1 out of every $100 spent on federal programs is backed by any evidence that the money is being spent wisely.

We believe rigorous evaluations have been successfully implemented for a few reasons. Importantly, the legislation for both programs specifies that some portion of funds should be used for evaluation. Program requirements also signify that evaluations are a priority. For instance, PREP grantees must participate in a federally-led evaluation, if chosen, and the "Tier 2" innovation grantees are required to conduct their own rigorous evaluations, unless selected to be part of a federally-led evaluation. All TPP Program grantees are required to conduct some program evaluation, with a subset selected for rigorous impact evaluation.[viii] In addition, there are several federally-led evaluation studies that include large, multi-state, rigorous evaluations conducted under contract to OAH.[ix] Besides rigorous evaluations, mandatory reporting of performance measures is another way that OAH and ACF ensure grant projects are making sufficient progress toward their stated missions and that there is continuous quality improvement.

Of course, providing support for grantees is another vital component to ensuring evaluations are successful. From review of initial evaluation designs to preparation of the final evaluation reports, TPP Program and PREP grantees received ongoing evaluation training and technical assistance support to ensure rigorous methods and reporting.[x, xi] In addition, it is essential to have a commitment to evaluation and learning from program leadership and adequate federal staff capacity to carry out that commitment. Leadership at OAH and at ACF demonstrated such commitment, built staff capacity, and worked closely with evaluation experts at the ACF Office of Planning, Research and Evaluation (OPRE) and the Office of the Assistant Secretary for Planning and Evaluation (ASPE).

In closing, thank you for considering our input for the Commission for Evidence-Based Policymaking. If you have any questions or need additional information, please contact me at 202-478-8512 or kkaye@thenc.org.

Sincerely,

Kelleen Kaye
VP, Research and Evaluation

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[i] Results for America. (2015). *Invest in What Works Fact Sheet: Federal Evidence-Based Innovation Programs.* Washington, DC: Author. Retrieved October 12, 2016 from http://results4america.org/policy-hub/invest-works-fact-sheet-federal-evidence-based-innovation-programs/. Also, Haskins, R. (2014). *Show Me The Evidence*. Washington, DC: Brookings Institution Press.

[ii] Lugo-Gil, J., Lee, A., Vohra, D., Adamek, K., Lacoe, J., & Goesling, B. (2016). *Updated findings from the HHS Teen Pregnancy Prevention Evidence Review: July 2014 through August 2015*. Washington, DC: Mathematica Policy Research. Retrieved October 12, 2016 from http://tppevidencereview.aspe.hhs.gov/pdfs/Summary_of_findings_2015.pdf.

[iii] Administration for Children and Families/Family and Youth Services Bureau. (2015). *Adolescent Pregnancy Prevention Program Fact Sheet.* Washington, DC. Author. Retrieved October 12, 2016 from www.acf.hhs.gov/programs/fysb/resource/app-fact-sheet.

[iv] Administration for Children and Families/Family and Youth Services Bureau. (2015). *Personal Responsibility Education Program: How States Planned and Implemented Adolescent Pregnancy Prevention Programs: State PREP Performance Measures of Structure, Cost, and Support for Implementation.* Washington, DC: Author. Retrieved October 10, 2016 from www.acf.hhs.gov/sites/default/files/fysb/prep_pm_brief_20151216.pdf.

[v] U.S. Department of Health and Human Services, Office of Adolescent Health. (2016). Results from the first round of TPP grantees. Retrieved October 12, 2016 from www.hhs.gov/ash/oah/oah-initiatives/tpp_program/cohorts-fy-2010-2014.html.

[vi] Morabia, A. (Ed.). (2016). Building the Evidence to Prevent Adolescent Pregnancy: Office of Adolescent Health Impact Studies (2010-2015) [Special issue]. *American Journal of Public Health, 106*(S1). Retrieved October 12, 2016 from http://ajph.aphapublications.org/toc/ajph/106/S1.

[vii] A recent GAO report includes TPP in its review of five tiered evidence grant programs, noting evidence is used throughout, including for assessing the evidence base and identifying evidence-based approaches, implementing evidence-based approaches with fidelity, conducting rigorous independent evaluations, and disseminating evaluation results.

[viii] U.S. Department of Health and Human Services/Office of Adolescent Health. (2016). TPP Evaluation and Performance Measurement. Retrieved October 10, 2016 from http://www.hhs.gov/ash/oah/oah-initiatives/evaluation/grantee-led-evaluation/grantees-2010-2014.html.

[ix] http://www.hhs.gov/ash/oah/oah-initiatives/evaluation/federal-led-evaluation/index.html

[x] http://www.hhs.gov/ash/oah/oah-initiatives/evaluation/ta.html.

[xi] Goerlich Zief, S., Knab, J., & Cole, RP. (2016) A Framework for Evaluation Technical Assistance (2016). *American Journal of Public Health, 106*(S1): S22–S24. Retrieved October 10, 2016 from http://ajph.aphapublications.org/doi/full/10.2105/AJPH.2016.303365.

PUBLIC SUBMISSION

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Comments Due: December 14, 2016
Submission Type: Web

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0076
Comment on FR Doc # 2016-22002

Submitter Information

Name: Richard Bayless

General Comment

Please do not support the data collection of our students (children). They are resilient, growing and maturing into a designed destiny that should not be directed or monopolized by, but not limited to, third party interests. They are not a commodity for revenue or the benefit of the state.

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0077
Comment on FR Doc # 2016-22002

Submitter Information

Name: M. Jones

General Comment

No government has the right nor should have the ability to collect and/or retain personal information for any induvidual unless that person has committed and been convicted of serious crimes.

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0078
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I strongly oppose any type of data collection on my children and family. There is absolutely no legitimate reason that in a free society the government ever needs to collect personal data of any sort on it's citizens. This would be serious government overreach and will not be tolerated. My family's personal information is private!

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0079
Comment on FR Doc # 2016-22002

Submitter Information

Name: Melissa Draper
Address:
   Smithfield, UT, 84335
Email: melissadraper3161@msn.com

General Comment

1. I am concerned that this commission is looking for ways to overcome the safeguards that have been put into place to protect the data of individuals and especially student data.
5. The challenges that exist in integrating local and state data with federal data are privacy protections for individual citizens and should not be overcome.
11. Personally identifiable information should not be collected on students for review by any "qualified researchers and institutions" because personally identifiable information should not be collected on students and held in any way by the federal government. This is not necessary to educate children.
19. Evaluations with experimental or quasi-experimental designs should NEVER be institutionalized in relation to education. Our children are not guinea pigs on whom to try out the latest theory and/or whim of so-called experts.

I am writing as a concerned citizen, parent, and grandparent. We need less federal interference in our local schools, not more data mining. Data gathering on our children, as well as on any citizens, is an invasion of privacy that is entirely a move away from

freedom for our country. Thank you for your consideration.

Sincerely,

Melissa Draper

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0080
Comment on FR Doc # 2016-22002

Submitter Information

Name: Paulette Bird

General Comment

Parents should have the right to decide how much, if any, of their child's information is used/accessed/collected.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0081
Comment on FR Doc # 2016-22002

Submitter Information

Name: Lisa Halliday

General Comment

I echo the testimony of Emmett McGroarty: We urge the Commission to resist calls to repeal the statutory prohibition on the development, implementation, or maintenance of a federal student unit-record system. Such a system would curtail liberty interests of the individual, would invite the collection and use of ever-more data, and would fundamentally alter the relationship between the individual and government in a way that is incompatible with our constitutional republic.

This kind of data collection is not necessary in education. If the commission is trying to practice evidence based policy, I see zero evidence of the need for a federal student unit-record system.

Sincerely,
Lisa Halliday
Mother of 2 and homemaker

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0082
Comment on FR Doc # 2016-22002

Submitter Information

Name: Jennifer McCarthy

General Comment

I oppose any sort of national student database. Not only does the government not have the right to our children's information, but it is absolutely appalling to me that corporations want access to more and more of our children's data. We must not allow tracking of citizens from school throughout their careers. Our children's privacy rights must be respected ... whether from corporations or from the government. Please do not allow this to continue.

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0083
Comment on FR Doc # 2016-22002

Submitter Information

Name: Pamela Smith

General Comment

I value parental consent, and have been an advocate for parental rights for many years. Collecting data from citizens by force or without consent goes against 4th Amendment rights of privacy. Our country was founded on the principle that the government serves the people, and does not control them. Do not allow this to continue!

Pamela Smith
"Principles of Freedom Forum"

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0084
Comment on FR Doc # 2016-22002

Submitter Information

Name: Charlotte Greenbarg
Address:
　Lutz, FL, 33559
Email: cgreenbarg@outlook.com

General Comment

I am against the efforts to establish a federal "unit record" database that would create an individual data dossier of college students linked to their employment, with the strong likelihood that it would be connected to the K-12 longitudinal system.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0085
Comment on FR Doc # 2016-22002

Submitter Information

Name: Van Harvey
Address:
 Saint Charles, MO, 63304
Email: vanharvey2@msn.com

General Comment

Neither our schools nor our students are suitable subject materials for social science experiments in government sponsored research. Our students are not suitable 'objects of research', the 'data' you seek to collect is not yours to gather, nor is data harvested from their time in school in anyway suitable for government use in plotting out 'successful' new strategies for public policy.

Our public schools exist solely to assist in developing informed students, capable of the judgment necessary to becoming self governing individuals, living in society with others.

What lives they may go on to lead, or how useful they might be to furthering various business interests, or any benefits which crunching their data might seem to yield through such unwarranted research, is none of the School's business, and none of the government's business.

Your business is providing a means for their education - nothing more.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0086
Comment on FR Doc # 2016-22002

Submitter Information

Name: KAren Bracken
Address:
   Ocoee, TN, 37361
Email: karen.bracken@reagan.com

General Comment

There is no need for the federal government to collect so much data on the American people. This is what Communists do to their people. STOP COLLECTING DATA. You already know more about us than you have any right to know.

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0087
Comment on FR Doc # 2016-22002

Submitter Information

Name: Mary Neubecker

General Comment

I oppose a federal "unit record" data base system creating a dossier on college students linked to their employment and would probably be linked to a K-12 longitudinal data system. Oppose S 1195. This whole data system is a direct reflection the same system that is used in Communist China. It tracks children throughout all their schooling including college right into the workforce which was predetermined for them as to which jobs they would work in for the rest of their lives.
This is not freedom to learn, to choose a job or career; this is communism.

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0088
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I believe data collection on any American citizen, in any form, without consent or court order is invasion of privacy! Especially when it concerns minors.

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0089
Comment on FR Doc # 2016-22002

Submitter Information

Name: Kathryn McCoy

General Comment

I do not support s. 1195 and neither should Senator Rubio, I voted for you sir and my hope that you were also against this mindless tracking of students.
Please vote no on s.1195

Thank you,

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0090
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I am a parent of 3 children ages 5-12. I vehemently oppose a national database of children's educational and social and emotional data. This will further line the pockets of the for-profit ed tech and educational industry and will do actual harm to our children.

The amount of money being spent for data, and technology, and software programs is astronomical, and is a tragedy when you consider how far that same money would go towards truly in investing in children through smaller class sizes, social workers, counselors, behavioral specialists, arts, music, school gardens.

My children have always taken whatever standardized tests are thrown their way. I've seen how those end of year and after every unit tests twist and damage what teachers actually do in the classroom. The computer based tests are absolutely shocking in how poor quality, confusing and developmentally inappropriate they are.

Enough. Let teachers teach and let's support teachers in the classroom in public schools.

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0091
Comment on FR Doc # 2016-22002

Submitter Information

Name: Jay Simpson

General Comment

A nationwide tracking database of students, whatever the reason, is neither true to the U.S. constitution nor common sense. Please oppose at all costs, and do not give way to corporate interests.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0092
Comment on FR Doc # 2016-22002

Submitter Information

Name: James Poulsen

General Comment

Our schools a have been taken over by Democratic ideologues who have squelched all other opinions except what they wish this began in 1965 so three generations have not been taught how to think only what to think, In addition the unions have allowed all teachers and administrators to be shoddy employees raping the sick day programs and lying about their workload.
So many teachers are lazy and more tied to the unions than to the students. Students are used only for discussion with little learning being done and the results are shown in the many, many high school and college students protesting on issues they know nothing about having never been taught the subjects only brainwashed by the teachers, the unions and George Soros network of anti-American one-world globalists who have been ousted with Trump.
Two books cover these subjects with facts:
The Closing Of The American Mind" By Allen Bloom and "One-Party Classroom" By David Horowitz and Jacob Laksin, exposing the brainwashing for 50 years in America's colleges.
In addition you may look up the hundreds of George Soros' funded protests and anti-American globalist policies and the scams he funds and the media never exposes.
http://www.ruthfullyyours.com/2010/11/16/read-this-mind-boggling-list-of-soros-funded-organizations/

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0093
Comment on FR Doc # 2016-22002

Submitter Information

Name: Julie Anonymous

General Comment

This should NOT be approved!! The government is OVER STEPPING into private lives of citizens on the premise of "just gathering data". You are spying on school kids and their families and you know it. Our government should be in place to protect the citizens, not to slowly erode their freedoms. The more data you have on each citizen just strips more freedoms away. This is merely data mining for more control of "we the people", who you should serve properly, not probe constantly.

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0094
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I'm opposed to the blanket tracking of all students K-12 in a national database, let alone that it later potentially be linked so that employers can query on a per individual basis. Enough of the broad tracking (invasion of privacy), of individuals (let alone our children), on the off chance that at some point in the future it may of use. Any data collected (let alone kept), should be PII free

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0095
Comment on FR Doc # 2016-22002

Submitter Information

Name: Andrew Reamer
Address:
   Washington, DC, 20052
Email: areamer@gwu.edu

General Comment

See attached file(s). Submitted on behalf of the American Economic Association's Committee on Economic Statistics.

Attachments

AEAStat CEP Comments 11-11-16

AEAStat Comments to Commission on Evidence-based Policymaking

The American Economic Association's Economic Statistics Committee (AEAStat) is pleased to respond to the questions posed by the Commission on Evidence-based Policymaking in the *Federal Register* of September 14, 2016 [FR Doc. 2016–22002]. AEAStat's responses are organized under three topics:

- the synchronization of data among economic statistical agencies (responding to questions 7 and 9)
- qualified researchers and institutions (responding to questions 10 and 12)
- microdata privacy and confidentiality (responding to question 11)

<u>Data Synchronization</u>

7. What data should be included in a potential U.S. government data clearinghouse(s)? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

9. What specific administrative or legal barriers currently exist for accessing survey and administrative data?

AEAStat has long been concerned about fundamental weaknesses in federal economic statistics due to the inability of the Census Bureau to share with the Bureau of Labor Statistics (BLS) and the Bureau of Economic Analysis (BEA) microdata that includes information obtained from Internal Revenue Service (IRS) records. While Title 26, Section 6103(j)(1)(A) authorizes the Census Bureau full access to IRS returns for statistical purposes, BLS and BEA do not have similar authority. As a result, the nation's three primary economic statistical agencies are severely limited in their capacity to collaborate in creating an integrated, rich, accurate picture of the state and dynamics of the U.S. economy.

More specifically, agencies' inability to synchronize their data results in:

- The absence of a single complete, reliable, detailed set of aggregate data on the organization of the U.S. economy by sector
- Principal Federal Economic Indicators (PFEIs) of lower quality and utility
- Unnecessarily high business respondent burden—as each statistical agency must independently contact each respondent to obtain (often the same) information

- Insufficient understanding of microeconomic behaviors and outcomes —as economic researchers are restricted in the ability to link business microdata and household microdata records. Recent evidence has highlighted that understanding economic outcomes for workers depends critically on knowing the characteristics of their employers.
- Diminished operational value of any federal data clearinghouse—as linking certain datasets would be legally impermissible

Through significantly diminishing the quality and raising the costs of federal economic statistics, the barriers to data synchronization create major impediments to evidence-based policymaking.

AEAStat believes that a successful federal data clearinghouse will require permitting qualified researchers and institutions access to microdata that permits integrated data sourced from federal statistical agencies as well as key holders of administrative data at the federal and state level. To create such integrated data will require elimination of the legal barriers discussed above. To that end, in April 2015 the AEA Executive Committee approved the attached resolution supporting congressional legislation that enables data synchronization between BLS, BEA and Census.

Qualified Researchers and Institutions

10. How should the Commission define ''qualified researchers and institutions?'' To what extent should administrative and survey data held by government agencies be made available to ''qualified researchers and institutions?''

12. If a clearinghouse were created, what types of restrictions should be placed on the uses of data in the clearinghouse by ''qualified researchers and institutions?''

AEAStat recommends that the definition of "qualified researchers and institutions" includes researchers in Principal Federal Statistical Agencies, federal policy and program research organizations, and academic and non-profit research institutions that agree to and meet terms similar to those now required for access to microdata in the federal statistical system. In particular, AEAStat recommends that qualified researchers and institutions obtaining microdata through the federal data clearinghouse should:

- not use these data for any regulatory or enforcement purpose, and
- adhere to confidentiality and privacy guidelines consistent with the Confidential Information Protection and Statistical Efficiency Act (CIPSEA) and Title 13 of the U.S. Code.

Privacy and Confidentiality

11. How might integration of administrative and survey data in a clearinghouse affect the risk of unintentional or unauthorized access or release of personally-identifiable information, confidential business information, or other identifiable records? How can

2

identifiable information be best protected to ensure the privacy and confidentiality of individual or business data in a clearinghouse?

AEAStat recommends that any federal data clearinghouse follow best practices for disclosure review as used, or in development, by the federal statistical system and by the research community.

AEAStat thanks the Commission for its efforts and invitation for input and looks forward to the Commission's responses to the comments from us and other evidence-based policymaking stakeholders.

Robert Moffitt, Chair
November 11, 2016

PUBLIC SUBMISSION

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0096
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

I am against creating a federal database that tracks individuals and their records. This is not the proper function of the federal government, nor is it necessary or productive, in my view. It is an invasion of privacy, and I don't agree that the federal government should be keeping such records on individuals.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0097
Comment on FR Doc # 2016-22002

Submitter Information

Name: Debi Demien

General Comment

We do not want a federal Unit record database of college kids. This is an invasion of privacy and another step toward Big Brother monitoring all of our lives. Sen. Rubio should understand how dangerous this is!

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0098
Comment on FR Doc # 2016-22002

Submitter Information

Name: Toni Weaver

General Comment

A federal unit-tracking system which compiles personally identifiable information (PII) without consent and with or without knowledge goes against the very concept of individual freedom upon which this country was founded.
Such a practice reduces each person to the status of a government possession whose main purpose is to provide an endless stream of data to be analyzed and studied.
When the government has the power to demand such information, the sovereign person is no longer sovereign, but a wholly owned asset of the state.
Just look at the de-humanizing language that is used: people are now referred to as "units", simply a measure of "human capital".
How far we have descended from the recognition that each person is a unique creation; a combination of the physical (quantifiable), the intellectual (interpretive), and the spiritual (unknowable).
The goal of any federal tracking system is to guide, manage, and enforce predictable outcomes, which runs counter to the dynamism that has allowed our country to flourish.
Planned societies are indeed orderly, but they are also necessarily rigid and tyrannical because the individual is sacrificed on the altar of the "common good".
When outcomes are left to "chance", there is a natural transcendent order that emerges, because outcomes are individual-driven (potential; interest; creativity; ambition), not government-driven (evaluation score; attributes; geography; industry demand,

malleability).

I should mention also that whenever information is housed in any data base - even a filing cabinet - it is subject to theft and abuse.

Such a tracking system is guaranteed to be targeted and breeched, causing untold harm to those whose information is contained within. It's just a fact. No data base is hack-proof. Kill this idea, and kill it now. It does not belong in America.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0099
Comment on FR Doc # 2016-22002

Submitter Information

Name: Matthew Snipp
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General Comment

November 13, 2016

Dear Commissioners:

I write to bring your attention to the American Opportunity Study (AOS). When completed, the AOS will support evidence-based decision-making for social issues and interventions by strengthening the infrastructure necessary for conducting quality research to better understand and address these issues. Rather than the study of a single issue, the AOS is best viewed as an initiative to develop the country's capacity to better exploit existing data by linking them in a longitudinal structure that will enable research on social conditions and economic mobility across the lifespan of children into adulthood. Government agencies and nonprofit organizations, especially university-based researchers can utilize this resource capacity to better understand specific social issues and build the evidence base for workable decisions and interventions.

The backbone of this longitudinal structure will be an intergenerational panel created

using existing data from the decennial censuses linked together at the person level. Subsequent linking of this longitudinal backbone with data from federal surveys and administrative data (from federal, state, and local sources) will create both the breadth and depth of information needed for social program evaluation. It will allow researchers to track adult outcomes for individuals who, either prenatally or postnatally, were exposed to favorable or unfavorable events or polices.

The United States has seen major changes in recent decades in family structures, gender roles, immigration patterns, occupational and industrial patterns, and labor markets. All of these factorsand othersaffect people's long-term health, social status, educational attainment, and economic opportunity. The (then) Chairman of the Council of Economic Advisors, Alan Krueger, openly worried that the negative cross-national correlation between income inequality and social mobility implies just such a reduction in opportunities to get ahead in the United States (Krueger 2012). Governments and nonprofits attempt to establish/modify programs to address social issues and help provide economic opportunities and healthy outcomes for children as they move into adulthood. However, the country's capacity to monitor trends and make long-term evidence-based policy decisions to effect positive change has languished.

The AOS will create an intergenerational panelusing existing data at the person levelto study both social and economic mobility and the effectiveness of programs and policies that affect that mobility. The AOS approach will produce a high-quality resource for monitoring intergenerational processes because it: (a) rests on contemporaneous rather than retrospective reports; (b) exploits administrative and census data that, given cost constraints, would be difficult to replicate in any new or existing survey; (c) ascertains a wide range of explanatory and outcome variables (e.g., education, income, occupation) and thus allows mobility and program effectiveness to be examined comprehensively; (d) supports analyses based on the full U.S. population (including tax non-filers, the incarcerated, and immigrants) and thus avoids the selective processes that use only administrative or survey sources; (e) provides large sample sizes and therefore supports data-intensive analyses such as studies within key subgroups; and (f) allows for a more accurate accounting of total error from estimates using linked data sources.

The National Academies of Sciences, Engineering and Medicine (NASEM) sponsored a workshop on May 9, 2016 whose goal was to better understand the potential impact of the AOS on future research, program evaluation, and policy analysis across a broad range of social sciences. The invited speakers represented a broad array of social science research, including research related to social and economic mobility, health, education, life experiences, and program evaluation. Discussions took place on how the AOS could work either alone and in conjunction with other existing resources to strengthen research and program evaluation capabilities. The following highlights from the workshop are cited from the published workshop summary (National Academy of Sciences, Engineering and Medicine, 2016), and provide evidence of the value of the AOS.

For your information, I am attaching to this comment two additional documents. One is a summary of the aforementioned workshop. The other is a brief albeit more detailed

description of the AOS. My colleagues and I would be delighted to discuss the AOS with the Commission. We hope you find this useful.

Sincerely,

C. Matthew Snipp
Burnet C. and Mildred Finley Wohford Professor of Humanities and Sciences
In the Department of Sociology
Stanford University
Stanford, CA 94305

Attachments

Worshop Summary

AOS brochure

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Using Linked Census, Survey, and Administrative Data to Assess Longer-Term Effects of Policy: Proceedings of a Workshop—in Brief

DETAILS

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Proceedings of a Workshop

July 2016

IN BRIEF

Using Linked Census, Survey, and Administrative Data to Assess Longer-Term Effects of Policy

Proceedings of a Workshop—in Brief

THE AMERICAN OPPORTUNITY STUDY

The United States has seen major changes in recent decades in family structures, gender roles, immigration patterns, occupational and industrial patterns, and labor markets. All of these factors—and others—affect people's long-term health, social status, educational attainment, and economic opportunity. At the same time, the country's capacity to monitor trends and make long-term evidence-based policy to effect positive change has languished.

The American Opportunity Study (AOS) is envisioned to create an intergenerational panel—using existing data at the person level—to study both social and economic mobility and the effectiveness of programs and policies that affect that mobility. It will develop the capacity to link existing data as needed for approved research purposes within a secure data environment. To begin work on the AOS, the National Academies of Sciences, Engineering, and Medicine, with support from the Carnegie Corporation of New York, established the Standing Committee on Creating the American Opportunity Study.

To begin its work, the committee has explored the feasibility of capturing names of the people in the 1990 census and convened its first workshop. The committee's goal for the workshop, held on May 9, 2016, in Washington, D.C., was to more fully explore the value and potential uses of the AOS throughout a broad range of social science research. The committee also wanted to explore researchers' data needs and how those might converge with the vision for the AOS.

"IF WE BUILD IT, WILL THEY COME?"

Standing committee chair **Michael Hout** (Department of Sociology, New York University) began the workshop by stating its goal: to better understand the potential impact of the AOS on future research, program evaluation, and policy analysis across the social sciences. The work envisioned—developing the necessary linkages, at the person level, between decennial censuses, important survey and program evaluation data, and relevant administrative data—is foundational to future social research. These data would be linked in the Census Bureau's secure data environment to provide researchers and policy analysts a robust, longitudinal national data infrastructure for the study of social welfare and the evaluation of public policy. Hout suggested that the workshop theme could well be: "If we build it, will they come?"

Responding to the question, **Timothy Smeeding** (School of Public Affairs, University of Wisconsin–Madison; chair, workshop steering committee) said that much policy relies on assessing longitudinal processes and long-run ef-

The National Academies of
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fects of programs, treatments, and life experiences. "We need to move beyond the one-off studies to systematically allow limited, orderly, and secure access to data, which we already have," he said. Smeeding was followed by **Amy O'Hara** (Center for Administrative Records Research & Applications, U.S. Census Bureau; member of the workshop organizing committee), who talked about the infrastructure within the Census Bureau that can enable the kind of data linkages envisioned. Much of the linking methodology is in place, and the 2000 and 2010 censuses have been linked to each other and to some survey and administrative data. A big gap is the 1990 census. "We have built an infrastructure and have pulled in tax data, Social Security data, housing data, and data from other sources, . . . and we are trying to create the most robust linkages. We are now interested in opening that data infrastructure up in a controlled fashion . . . to enable more studies," O'Hara said.

Smeeding reemphasized that the goal of the workshop is to provide "proof of usefulness," moving beyond the core concept of social mobility to using the AOS for evidence-based policy making. Explaining the organization of the workshop, he said that the invited speakers represent a broad array of social science research that the workshop steering committee grouped into four categories: social and economic mobility; health, education and the life course; program evaluation and life experiences; and using the AOS cooperatively with other sources of data. The speakers were asked to discuss how the AOS, when fully actualized, could contribute to their own research and, more broadly, to their field of research.

THE AOS IN THE STUDY OF SOCIAL AND ECONOMIC MOBILITY

The study of social mobility speaks to issues of class formation, equal opportunity, and lifetime inequality. The speakers in this session addressed this area of social research with emphases on neighborhood effects and family structure.

David Grusky (Department of Sociology, Stanford University; member, standing committee) spoke about how the AOS would improve the country's capacity to monitor and understand social mobility. Grusky said there are growing worries about a decline in social mobility in the United States, but because existing data cannot provide reliable information, everyone has been left with clever attempts to "make do." He listed seven specific advantages the AOS would bring to the study of mobility: (1) improved measurement of occupational mobility; (2) multidimensional measurement of mobility; (3) better measurement of racial and ethnic heterogeneity; (4) an

annual measurement protocol; (5) neighborhood heterogeneity (see the next presentation, by Nathaniel Hendren); (6) improved representation of family effects (see Laura Tach's presentation); and (7) better measurement of the intergenerational reproduction of poverty.

Nathaniel Hendren (Department of Economics, Harvard University) discussed how social mobility might be rooted in neighborhood effects. His research (joint with several colleagues) aggregates data from U.S. income tax returns and tax information returns (such as W-2s) to study geographical variation in intergenerational mobility. He provided an example study involving 5 million families that moved among areas in the country: it showed that the earlier in a child's life a family moves to a better neighborhood, the better that child does in adulthood. These results prompted Hendren and his colleagues to reexamine a 1990s-era social policy experiment program known as the "moving to opportunity experiment," it provided families living in high-poverty housing projects with vouchers to move to lower-poverty neighborhoods. The initial evaluations of this experiment showed few effects on economic outcomes, but the reexamination—which focused on younger children—showed different results as the children reached adulthood: a higher percentage going to college and a 30 percent increase in earnings. Hendren said that an intergenerational panel as proposed by the AOS would be of enormous value for such research. He also identified some potential challenges, including legal constraints, privacy concerns, and logistical constraints.

Laura Tach (College of Human Ecology, Cornell University) addressed the topic of family structure and family demography in the context of social mobility. Three specific aspects of family demography—family formation, family disruptions, and family complexity—are important to study, and such work is difficult to do with administrative and survey data. She said that an AOS-type data structure might help to overcome many of the difficulties.

Tach described her research using the Fragile Families and Child Wellbeing Study, a prospective cohort study of children born in the late 1990s that tracks the children over time. A 15-year follow-up is now in the field. The study follows the child, the child's mother, and the child's father. She said that the chief limitations of the study are its restriction to an urban sample and its coverage for only the 1990s and forward. She indicated that AOS might have the potential to help with both limitations, as well as to help recover important information about unmarried fathers. She concluded: "A panel like the AOS, with its intergenerational linkages, is probably the only data source I can think of that

would allow us to be able to look at how growing family instability and complexity affects the processes of intergenerational mobility and the reproduction of inequality."

THE AOS IN THE STUDY OF HEALTH, EDUCATION, AND THE LIFE COURSE

Speakers in this session addressed the early life effects of environmental factors, health conditions, poverty-related stressors, and education on people's long-term health and opportunities.

Janet Currie (Woodrow Wilson School, Princeton University) spoke on early life experiences as a root of inequality. Currie's main research focuses on two questions: Which environmental factors affect early life health? How does early life health affect later life outcomes? In pursuing these questions, Currie merges birth and death records from vital statistics with hospital discharge and emergency room visit records. She discussed the main advantages and disadvantages of each source, along with examples. Linking these data sources to census data would add considerable value, she said: "It is extremely helpful just to know where people were born."

For an example, she cited forthcoming research showing that children who were born in counties that were subject to the U.S. Clean Air Act have higher employment and earnings and lower levels of disability as adults than children born in counties not subject to the act.[1] In discussing barriers, Currie pointed out that most health data are "owned" by states, which vary in their openness to share data and in their technical capabilities to construct usable data structures. She said that it might be possible to build on existing state collaborations with the Agency for Healthcare Research and Quality through the Healthcare Cost and Utilization Project.

Ken Smith (Huntsman Cancer Institute, University of Utah), who works extensively with state data, focused his presentation on work with the Utah Population Database (UPDB). He said he thinks the UPDB includes the kind of breadth for Utah that the AOS is hoping to achieve nationwide. Smith described the Early Life Conditions, Survival, and Health Project, which is looking at how early life conditions affect later life health. One goal of this project is to try to identify at-risk populations and—by improving their understanding of health disparities that may arise early in life—to help guide interventions and surveillance strategies. Smith enumerated some of the administrative sources of data that have been brought together in the UPDB and

noted that there is also a large ongoing record-linkage operation. "We are able to link not only parent to child, but we are able to link tenth cousin to tenth cousin. Any kind of any family connection that you can imagine—polygamy, consanguinity, all of the complexities that you would expect to see in any population—we are able to capture," he emphasized. The goal is to establish family histories of health and medical conditions, some of which could have effects on social mobility, but also on individual health outcomes. Smith concluded by noting that the AOS as envisioned could help close some gaps in the UPDB, such as following people who migrate to different states, and working with administrative data from cancer registries in other states.

C. Cybele Raver (Vice Provost for Research and Faculty Affairs, New York University) described her research on the role of poverty-related stressors (such as scarcity, threat, and turbulence) for children's difficulty in school. The work is based on a longitudinal follow-up of a randomized trial in 2003-2004 in very low-income neighborhoods in Chicago. In the study, teachers intervened in specified ways to help children regulate their emotions and their cognitive functions. Raver reported: "We saw significant benefit . . . and those interventions worked for young children. What was really challenging is that those benefits were quickly eroded as children transitioned into both low-quality schools and continued to live in very dangerous, unsupported, environmentally less stable, and less resourced environments." She said that she sees environmental insult and environmental repair as fundamentally intergenerational, and thus could benefit from the type of intergenerational data structure in the proposed AOS, with stronger administrative, census-level, and population-level data. Raver concluded: "The extent to which [research on] long-range educational outcomes is a possibility from these kind of data is phenomenal . . . It would be great to be able to estimate two-generational effects."

Susan Dynarski (School of Public Policy, University of Michigan) spoke on the linkage between education and economic mobility. She described several examples of her research on the effect of education policies on educational attainment, achievement, and adult well-being. Her work documents levels, trends, and inequality in educational outcomes by parental income and by race and gender. Dynarski uses data from both traditional surveys and administrative sources obtained through research partnerships with state education agencies. In cooperation with state agencies in Massachusetts and Michigan, she is building a longitudinal data system that covers students starting in 2003. Dynarski stated that grants from the Institute of Education Sciences is encouraging these types of partner-

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[1]Adam Isen, Maya Rossin-Slater, and Reed Walker. (In press). Every breath you take—every dollar you'll make: The long-term consequences of the Clean Air Act of 1970. *Journal of Political Economy*.

ships between academics and the state agencies that hold educational data, creating usable data systems. She added: "These state data systems are where educational research is currently being done—they are huge, they are comprehensive, they are cheap." It is pretty important to tie these partnerships and data systems into the AOS vision for linking existing data and data systems, she said. Better data are needed to help understand the effects of educational interventions on adult well-being—the long-term effects. Important to this understanding is knowing parental background in a more detailed way to understand variability and the effects of policies.

Dynarski identified several barriers in this work. On postsecondary intergenerational mobility, a "big constraint is that there are no comprehensive national data on attendance, attainment, or degrees." She said that variability among state agencies in interpreting federal laws, such as the Family Educational Rights and Privacy Act (FERPA), is also a barrier. Lastly, Dynarski said there is an organized constituency that opposes the linkage of student data to anything else, presumably for reasons of privacy: she warns that this opposition will be a barrier to including more educational data in the AOS infrastructure.

THE AOS IN PROGRAM EVALUATION AND LIFE EXPERIENCES

Speakers in this session discussed the issues involved in evidence-based program evaluation and the importance and difficulty in studying the impact of two different life-course connections: military service and criminal involvement.

Gordon Berlin (President, MDRC) talked about the work of his organization, a nonprofit, nonpartisan education and social policy research organization. MDRC performs evaluation studies of the effects of services for low-income families, typically using randomized controlled trials with mostly short-term (5 years or less) follow-up. The studies span the life cycle and many fields, including families and children, education (all levels), and the economic outcomes for low-wage workers and the hard-to-employ. To conduct these studies, MDRC uses primary data collected from study participants, state and federal administrative data, and data from program management information systems—which are usually linked by MDRC.

Berlin talked about the limitations of the current approach to program evaluation. State administrative data are hard to access and difficult to use. There is considerable variability across agencies in terms of regulations (which may limit access), consent requirements, interpretations of federal policies such as the Health Insurance Portability and Accountability Act (HIPAA),

and data security requirements. State agencies have limited resources to assist. Similarly, federal data also have limitations for program evaluation purposes. Often the data are designed for limited types of research; some are "de-identified," which makes them hard to link to other data; and there is often a substantial lag in their availability. Berlin said one of the potential benefits of the proposed intergenerational data in the AOS would be to greatly reduce the effort of collecting data so that MDRC could possibly examine longer-term impacts. For MDRC's work, the intergenerational panel would need identified data that could be linked to a study sample, have a short lag for timely assessment of outcomes, and are consistent with the study's consent requirements. Other potential uses of the AOS data would be to help in the study design, to use in predictive modeling, and to help generalize results from the study sample to a larger population.

John Laub (Department of Criminology and Criminal Justice, University of Maryland) and **William Sabol** (Westat) jointly discussed the potential of the AOS for research and program evaluation on crime, punishment, and human development. To illustrate the power of using robust, longitudinal data in criminology, Laub described the Glueck Project, which followed 1,000 juvenile males (500 delinquents and 500 non-delinquents) from 1940 to about 1963. In a 50-year update of the Glueck men's lives,[2] researchers found enormous variability in criminal activity among the men over the full life course. They concluded that trajectories of crime are influenced but not determined by prior childhood differences: desistance (from criminal activity) is a process and occurs even for those at highest risk for continued offending. Interventions may be potential turning points in the life course.

Sabol talked about the effects of growing up in an era of mass incarceration. Questions continue about the effects of this phenomenon on labor market outcomes, physical and mental health outcomes, family formation and dissolution, family outcomes, victimization risk, and persistent criminal involvement. Sabol noted a key question in the research: "What happens to life-course changes of people who have been through the system in the 1970s versus the 1990s? I think the AOS clearly provides opportunities for addressing that question." Sabol said the major challenge for him is "how to bring into this mix of information on earnings, employment, and so forth some measure of criminal history."

Alair MacLean (Department of Sociology, Washington State University) talked about her research exploring the life-course trajectories of veterans who served in

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[2]John H. Laub and Robert J. Sampson. (2003). *Shared Beginnings, Divergent Lives: Delinquent Boys to Age 70*. Cambridge, MA: Harvard University Press.

the U.S. armed forces, focusing on the effects of military service and combat exposure on work and health. She looks at what happens to veterans immediately after they get out of the military, as their postservice careers unfold, and when they retire. MacLean examines factors, such as earnings, income, unemployment, health, and disability across different cohorts (such as World War II, Vietnam). "They come home to very different societies, so I look at how that might differ," MacLean said. Addressing the data that she uses for research, she mentioned the Wisconsin Longitudinal Study, the Health and Retirement Study, the National Longitudinal Study of Youth, and the Educational Longitudinal Study. MacLean identified three limitations to these data: lack of information about family background, small sample sizes (rates of military service in the general population are quite low), and limited coverage of eras. Regarding the potential usefulness of the AOS, MacLean said: "I was very excited to read the proposal because the idea of being able to have these very large population-based samples that link people to their families would be extremely helpful for military research." She believes that it would be important to link Department of Defense data to the AOS because it would enable studies of the long-term effectiveness of veteran's benefits (such as health care and the GI bill), which are currently a large part of the federal budget.

THE AOS USED COOPERATIVELY WITH OTHER SOURCES OF DATA AND INFORMATION

In this session, speakers discussed examples of existing work being done to provide or link data for longitudinal research in social science and how these efforts might benefit from and contribute to the AOS.

Katherine Harris (Carolina Population Center, University of North Carolina at Chapel Hill) spoke about the National Longitudinal Study of Adolescent to Adult Health (Add Health). Add Health started with a nationally representative cohort of adolescents in grades 7 through 12 in 1995 and now follows them into adulthood. The study's fifth wave is about to be fielded. Harris said the study has an integrative design to understand social, environmental, behavioral, biological, and genetic linkages to health across the life course. Add Health is primarily a health study with a focus on the role of social context. The researchers have linked to school records and military records; they also asked respondents to consent to linking to their Social Security Administration (SSA) records, and about 50 percent consented.

One example of how the AOS could enhance the research work being done through Add Health would be to confirm the linkages between the sampled children and their parents and to obtain more information about the parents. A second example is that it could be used to link to important administrative data that would provide annual income and unemployment data on the parents over time. This linkage would enable research on the effects of early life socioeconomic status (SES) that is now missing. Linkages to tax data would provide residential information on an annual basis that would be incredibly valuable for the study of environmental threats to health. With such data, the researchers could then model residential selection processes among parents and also among children after they leave home. Harris talked about the peer networks that the children have in adolescence. Linkage with the AOS would provide an opportunity to track these peer networks as the adolescents disperse later in life. All of this research would advance the goal of understanding how adolescent experience and exposures affect adult health.

David Johnson (Survey Research Center, University of Michigan; member, standing committee) discussed his work as codirector of the Panel Study of Income Dynamics (PSID). The PSID began in 1968 with 4,800 families, with oversampling of low-SES families; it was designed to evaluate causes and consequences of poverty. It has now been running for almost 50 years. Researchers follow the original families, their children, and the new families that have been formed among them. The PSID added immigrant families in 1997. Johnson said that the best feature of the PSID is that it is multigenerational, containing five generations of families: "We have the base for looking at mobility." The PSID survey data are linked to administrative data, such as Medicare claims data, college data from the Integrated Postsecondary Education Data System, and data on assisted housing from the Department of Housing and Urban Development. The researchers now plan to link to data from the real estate Website Zillow and the SSA.

Johnson briefly described two examples of how the PSID and AOS could be used in concert with each other to evaluate long-term policy. He said that the biggest complaints researchers have with the PSID is that the sample is too small, and it is no longer representative of the U.S. population. The AOS would allow the PSID to efficiently supplement its data and obtain more recent information about respondents who dropped out of the survey and historical information about the new people in the PSID sample, such as those who married into the PSID families. He also suggested that the PSID could assist the AOS. The AOS intends to link 1990 census data to data from subsequent censuses at the person level. Johnson suggested that since PSID participants are closely tracked, it could be used to find the PSID participants in the 1990, 2000, and 2010 censuses, and

Collaboration Supports Policy Development and Academic Research
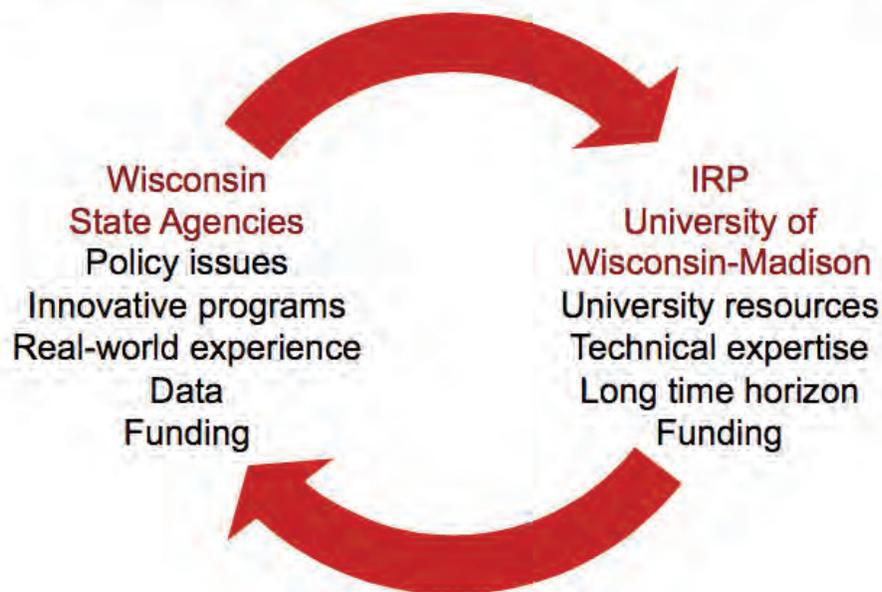
Figure 1 Logic of collaboration between the Institute for Research on Poverty and Wisconsin state agencies to support policy development and academic research.

evaluate whether the AOS procedures matched those individuals correctly across censuses.

Martha Bailey (Department of Economics, University of Michigan) discussed the Longitudinal Intergenerational Family Electronic Micro-Database (LIFE-M). Just coming out of a pilot phase, LIFE-M is an administrative database that is going to use vital records (birth, marriage, death) as a basis for a long-term family network created with linkages of individuals from birth to death and across generations. The assembled data will further longitudinal analyses of large samples and subsamples of individuals and families over recent U.S. history. There are plans to link these vital records to census and other data. This database is going to span the late 19th century and most of the 20th century for a subset of states. Bailey said they would like to harness a variety of data relating to birth-family characteristics and to obtain economic and demographic outcomes from census data. The researchers are also interested in geographic information, specifically at the time of vital events. In discussing limitations, Bailey said that the coverage of vital records by state and period varies, and not every state has its records available online. Furthermore, if parents had children and then moved to a different state, it will be difficult to continue to link these individuals. In addition, the study will be limited by the periods that are covered. Lastly, she noted, clerical review turns out to be really important for linking,

and such review is very expensive. The AOS has the potential to overcome or mitigate some of these limitations, Bailey said.

Jennifer Noyes (Institute for Research on Poverty, University of Wisconsin–Madison) discussed the collaboration between the Institute for Research on Poverty (IRP) and Wisconsin state agencies to inform policy and practice. Figure 1 graphically displays components of that collaboration. Through this collaboration, IRP has created a single record for each individual by matching and merging from the primary data sources, using identifying variables: these matches are complex and time-consuming to program. Noyes said the database is very flexible for different uses, such as measuring program participation, understanding the relationships between programs, and measuring the effect of policies. For example, one study addressed the reasons that program participants become "disconnected" from programs. Noyes described three key lessons from this work: (1) collaboration with data custodians has been and will continue to be essential; (2) involvement by an outside partner who does not "own" any of the programs or the associated data can provide objectivity to the entire process; and (3) infrastructure requires sustained commitment by all parties and significant funding. In thinking about linkage with the AOS, Noyes said that it could help fill in the gaps in the IRP's information about income, education, and occu-

pation. It could help track people outside of Wisconsin and could help the IRP improve its matches.

A RELATED ACTIVITY IN CONGRESS

Bruce Meyer (School of Public Policy, University of Chicago) briefly described the Evidence-Based Policymaking Commission, recently created by Congress. Meyer, a commission member, said the commission, which is to report to Congress in 15 months, will play a critical role in facilitating policy evaluation and research. The commission will have 15 members, 3 each appointed by the President and by the leaders of both houses of Congress. The commission's mandate is first to conduct a comprehensive study of the inventory, infrastructure, and data security of administrative and survey data and then to make recommendations on an optimal arrangement for using these data together. The commission is to make recommendations on the incorporation of outcome measures, randomized controlled trials, and impact analysis in program design. It might recommend the creation of a data clearinghouse. Meyer noted some opportunities emerging from the commission's work: it could help show the value of administrative data; push agencies to share data while giving them cover; build a consensus for evidence-based legislation; and reassure the public that data are secure. "If there is a statement by a congressionally appointed commission that sharing administrative data is good for the country, good for policy making, and good for research, then I think it does help," Meyer said.

STATISTICAL CHALLENGES

Stephen Fienberg (Department of Statistics, Carnegie Mellon University; member, standing committee) cautioned that enhancements in data matching and estimation methodology will be needed to fulfill the promise of the AOS. "Everyone has been talking about matching as if it is a simple thing to do and you can do exact matching. It just ain't so," he said. The most common approach to data linkage with multiple files today, and the one that is used at the Census Bureau, is to match each file pair-wise with the Social Security Numident file (containing names and information from applications for Social Security cards). Fienberg recommends an approach he calls "multiple record linkage" in which all files are analyzed together in a systematic way to make efficient use of all information across all files and avoid the transitivity problems that can arise from sequential steps. He said that, once linked, users will have to consider how to incorporate uncertainty about matching into the statistical estimates based on those matches. Since there is error in matching no matter how well it is done statistically, both bias and uncertainty need to be measured. "We need to be able to 'propagate uncertainty' from the record linkage as an added component

of uncertainty into the statistical estimation based on linked files." Fienberg noted that research into matching and estimation methodology is part of the agenda before the AOS standing committee.

NEXT STEPS

Three members of the workshop steering committee answered the questions: What did we hear? What are the big questions? What else do we need to do?

Hout spoke first: "The big lesson from today, and I was really heartened, is that we are not inventing the wheel here. There is a lot of experience out there that we can start to draw on and collect and pool together. The American Opportunity Study is the next big step." Hout noted that the need to build relationships with state-level agencies was repeated by several presenters. "There is a quid pro quo in dealing with administrative data. We have to offer back to those who have the data the products and insight they could not otherwise get. We are not just bringing together data or assembling data but enhancing and passing back better, more usable information to those who have provided data to us."

Smeeding said he has concluded that this meeting provided extensive proof of usefulness. "We heard many times today that 'longitudinal' is important, and the AOS can and will lead to big improvement in current longitudinal surveys and vice versa. A second point, he said, is that there is a lot of work going on using state data on health and education. The AOS will not get comparable data from all the states, but these state-based studies are all asking the same questions: How do kids do as adults as a result of their SES and experiences in early life? Smeeding said that there is considerable value added that the AOS can give back to the states on this subject once the state data are aligned to longer-term national data on education, health, social, and economic outcomes that will be available in the AOS.

Bhashkar Mazumder (Federal Reserve Bank of Chicago) offered several points from the day's speakers. There is a strong need for both administrative and survey data, he noted. Even the presenters whose primary work was with administrative data talked about how results could be enhanced by linking them to survey data. He commented that several people touched on the issue of data access and whether the Federal Statistical Research Data Centers might be a good vehicle to provide that access. He noted that there was a lot of discussion about the importance of linking various survey and other data to vital statistics from state agencies. He said he agrees with Currie's comment that the AOS work should start with low-hanging fruit—the

most populous states or states that make their vital statistics reasonably easy to access.

Mazumder also summarized several issues that might be important for the new congressional commission to address. One is the in-house expertise, or lack thereof, of federal and state agencies to develop memoranda of understanding to make effective state-federal partnerships. A second issue for consideration is the apparent variability in interpretation of federal regulations, such as FERPA and HIPAA. Some federal help will be needed on this issue. Mazumder also noted the timeliness issue: 4-5 years may be fine for a research project, but program evaluation requires a more rapid turnaround. "We need to remember the need for timeliness in the procedures to access data for these purposes," he concluded.

Division of Behavioral and Social Sciences and Education

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American Opportunity Study

Workshop: May 9, 2016

Potential for Research Using Linked Census, Survey, and Administrative Data to Assess Longer Term Effects on Policy

http://sites.nationalacademies. org/DBASSE/CNSTAT/ DBASSE_172151

What is the American Opportunity Study?

The *American Opportunity Study* (AOS) was conceptualized to create an intergenerational panel **using existing data** to study such important topics as occupational, social and economic mobility, as well as the effectiveness of programs and policies, such as education and health, which impact such mobility. This is foundational research -- developing the necessary linkages, at the person level, between decennial censuses, important survey data such as the American Community Survey, and applicable administrative data to

form this panel. These data will be linked within the Census secure administrative record data environment, in partnership with the existing and developing Census Bureau linkage infrastructure. A diverse group of analysts and researchers will be able to obtain access to data for approved projects within a Federal Statistical Research Data Center in support of evidence-based social and economic policy research.

The Carnegie Corporation of New York has sponsored the initial phase of this research.

Contact us for more information

Standing Committee for the American Opportunity Study – Phase 1
Chair – Michael Hout, NYU   mhout@nyu.edu
Study Director – Carol House, NAS   chouse@nas.edu

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Why is the American Opportunity Study Needed?

"The AOS is proposed—not as a new, large-scale, costly survey—but instead as a way to capitalize on existing data."

With passage of the Evidence-Based Policymaking Commission Act of 2016, this work will become evern more important and relevant for future research and evidence-based evaluation of social policies.

The study of mobility matters because it speaks to issues of class formation, equal opportunity, and lifetime inequality -- the extent to which children born into different families have different life chances and outcomes. The conventional formula has it that Americans tolerate or even embrace extreme inequality because they believe that opportunities to get ahead are widely available and that outcomes reflect talent and effort rather than the accident of birth. The correct question to ask is *to what extent do the conditions and circumstances of early life constrain success in adulthood*? Mobility analysis is now mainly oriented toward addressing just this question and thus casting light on whether the United States is indeed living up to its stated commitment to equal opportunity.

The United States has seen massive changes in recent decades in family structures, gender roles, racial-ethnic and national origin, immigration, educational attainments, occupational and industrial structure, economic inequality, criminal justice and labor markets. All of these factors are relevant to changes in social, educational, and economic opportunity and mobility. At the same time, the country's capacity to monitor trends in mobility has languished, making it difficult to evaluate new concerns that mobility may be declining or to develop evidence-based policy on mobility. The last large-scale survey of social mobility in the United States was fielded in 1973. Since then, the country's capacity to monitor trends in mobility has made little progress , making it difficult to evaluate growing concerns that mobility may be declining or to develop evidence-based policy on mobility.

Expected dividends --

- High quality data
- Cost savings, efficiencies and respondent burden reduction
- Self-propagating
- An enduring foundation for the use and analysis of administrative data sources
- A secure resource
- A new resource for evidence-based policy evaluation

American Opportunity Study

High-quality data: The AOS will be a high-quality resource for monitoring intergenerational processes because it: (a) rests on contemporaneous rather than retrospective reports; (b) given cost constraints, would be difficult to replicate in any new or existing survey; (c) allows mobility to be examined comprehensively; (d) allows for analyses based on the full U.S. population (including tax non-filers, the incarcerated, and immigrants); and (e) is large enough to examine mobility within key subgroups and to allow for data-intensive analyses.

Cost savings, efficiencies, and respondent burden reduction: The AOS will exploit data that have already been collected for other purposes and add value to those data by assembling the latent panel underlying them. Given the AOS's architecture, any sufficiently large survey (e.g., SIPP, PSID, NLS, ADDhealth) with individual identifiers can also be linked to it, making it possible to secure new variables for the subset of individuals who appear in both the AOS and the survey.

Self-propagating: As new American Community Surveys are fielded and new administrative data become available, the latest income, occupational, and other relevant data can be appended to the individual records already in the sample, and new entrants into the United States (either via birth or immigration) will accordingly be added to the AOS infrastructure. This "self-refreshing" feature of the AOS overcomes the problems with unrepresentativeness and attrition that are inevitably present in survey-based panel data.

An enduring foundation for the use and analysis of administrative data sources: The potential use of administrative data sources for research and use in producing Federal statistics promises to be one of the major social science developments of our time. But adoption has been slow because data linkage efforts are now one-off affairs. In contrast the AOS infrastructure would be an ongoing resource that would sustain generations of social science research and evidence-based policy analyses.

A secure resource: The AOS will not raise any new or complicated data privacy concerns, in part because no permanently stored all-encompassing database will be created. Instead, data will be linked on demand as directly needed for approved research projects. The linked data, without personal identification, will be made available only to carefully vetted researchers and projects through Census RDCs, thus providing yet another layer of protection.

A new resource for evidence-based policy evaluation: When linked to other survey and administrative data, the AOS will become a valuable source of longitudinal data for social program evaluation. It will allow researchers to track adult outcomes for individuals who, either prenatally or postnatally, were exposed to favorable or unfavorable events or policies such as military service or criminal justice penalties. This would give the country a new and unprecedented capacity to evaluate the long-run effects of various forms of program participation, key policy experiments, and various forms of institutional participation. Although it's widely agreed that policy decisions should take into account the long-run effects of proposed programs and interventions, the high cost of fielding long-term panels has obliged us to make policy decisions largely on the basis of immediate (and potentially transitory) effects. The AOS would provide a data infrastructure to allow the U.S. to develop and evaluate policy on the basis of a fuller assessment of effects.

What has been accomplished?

The AOS project has partnered with the Census Bureau and Stanford University in an initial focus to link the 1990 decennial census to the 2000 and 2010 censuses, which have already been linked through Census Bureau technology. Following the 1990 linkage, the project will focus sequentially on linking the 1980, 1970, 1960, and 1950 censuses.

Phase One (2015-16) of the AOS is examining the feasibility of the process, and developing the methodology to allow the project to move into an operational second phase.

- The names of household members were not electronically captured on the 1990 census, but these names are needed for person level linkage. These names exist as images on 120,000 reels of microfilm. Project staff sampled 392 reels and created 675,549 scanned images. Staff also created a *truth file* by hand keying 69 of the sampled reels. The truth deck contains 46,439 last names and 46,336 first names.
- Project staff has been working with subcontractors on optical character recognition (OCR) methodology to be able to read the scanned names. All work with real names has to be performed within a secure Census facility. This work is in progress, but early results are very encouraging.
- Project staff has identified an alternative approach to matching 1990 Census records that is less reliant on OCR results for identifying names. Staff will be researching and assessing this approach over the next year of the project.

The AOS is partnering with an ongoing effort at the Census Bureau to develop new capacities for strategically reusing administrative data from federal, state, and commercial providers. This initiative is dubbed CLIPP (Core Longitudinal Infrastructure Population Project). The Census Bureau has linked the 2000 and 2010 censuses. The current focus of CLIPP is to link a variety of administrative files, such as those with social program participation data, with data from ongoing surveys and censuses. They have also been working with researchers to link 1940 Census data, which is publicly available, to the 2000 and 2010 censuses. The AOS continues to focus on linkage of the 1950-1990 censuses, which are critical for studies of contemporary social mobility and for developing a permanent infrastructure for monitoring trend in mobility. The 1950-1990 Censuses are key because they provide income, education, and occupation information on parents of contemporary workers. To learn about the bulk of workers currently in the labor force, we need to reach back to the 1950-1990 censuses.

What are the next steps?

The project staff will continue to develop, fine-tune, and assess methodology that will allow the 1990 census names to be scanned, optically read, and matched with more recent censuses.

The project staff will explore enhancements to existing record linkage and matching technology that is currently used within the Census Bureau linkage infrastructure. Staff will also explore improved methods of estimating the total statistical error associated estimates from linked data sets.

We will seek partnerships with organizations to fund the operational phase of scanning, reading, and linking names from the 120,000 reels of microfilm that make up the 1990 census.

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0100
Comment on FR Doc # 2016-22002

Submitter Information

Name: Stephanie Chamberlain

General Comment

Please respect the privacy of students and individuals. I am strongly opposed to the federal collection of student data. This places children at risk.

PUBLIC SUBMISSION

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0101
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anne Lucas

General Comment

It is horrifying to think that individual privacy could be sacrificed for social engineering, commercial and/or political reasons. A federal unit record database is yet one more step toward a dystopian society. This kind of intrusion, like political correctness, destroys the very strengths of our country. I did not grow up in this kind of environment and i don't want my grandchildren subjected to such dehumanizing scrutiny.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0102
Comment on FR Doc # 2016-22002

Submitter Information

Name: Lora Hubbel

General Comment

Stop with the Data Collection...we are supposed to be "secure in our papers". There is NO Evidence in your "Eveidence Based Policy making"...its is pure control of the population. The more you know about a child the more you can "control" that child. Leave the children alone so they can form their OWN destiny!. Stop taking away our DESTINY!!!

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0103
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

No way is this a good thing.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0104
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

The federal government doesn't have a stellar reocord of successful public education. We don't need their policy regulations, therefore we don't need this legislation to track students from kindergarten through their work life.

PUBLIC SUBMISSION

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0105
Comment on FR Doc # 2016-22002

Submitter Information

Name: Susan Stephens
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General Comment

As a grandmother of 6 who has kept abreast of education issues/policies/trends ever since I completed my degree in this field of study, I am totally opposed to the federal gathering of data and tracking our children (at any age from kindergarten through college & beyond, etc.) under the guise of educational improvement/ better teaching practices/ targeted instruction & help for students/ or even facilitating our classroom teachers' interactions with their student.

While the proposal is targeted for college (and career/employment) at this time, we all know such data collection will extend to earlier and earlier years in the lives of our youngsters.

Such gathering of data of a free people has no place in our nation, especially by our own government, and in fact, is a violation of our Constitution. Space and time precludes giving all the reasons such data mining & collection & usage is wrong on all levels. Data gathered never remains private; in fact, keeping it private would defeat the supposed purpose. Too often data ends up in the wrong hands for the wrong purposes. Third party

sharing of data (and even the government's own record of that data) could impact a person throughout their life.....and not always for their good.

The "right to privacy" was deemed a reason by the U.S Supreme Court as a justification for legalizing abortion in 1973 Roe. vs. Wade. So why would that "right to privacy" be thrown to the winds regarding our children and their future via massive data collection via our public schools and testing??

My husband and I adamantly state our total opposition to any such proposal or implementation of establishing a massive data dossier on any individuals in our country.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0106
Comment on FR Doc # 2016-22002

Submitter Information

Name: Marilyn Oakes

General Comment

Must we put every child in this nation into a "national" data base? What is the point and who is pushing this idea? We need to keep this kind of reporting and record keeping in the hands of the states, not the federal government. Thank you for listening.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0107
Comment on FR Doc # 2016-22002

Submitter Information

Name: Cathy New Yorkers United

General Comment

Say no to government tracking of student data and teacher data. Protect the privacy of our children.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
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Comment On: USBC-2016-0003-0001
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Comment on FR Doc # 2016-22002

Submitter Information

Name: Loie TenBrink

General Comment

I oppose S 1145. Stop common core.

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Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

I oppose any type of national student database. Taking information on my child is not necessary for education and is unnecessary to teach her the necessary skills required to succeed in life. Stop the collection of data on our school children and return to teaching our students to read, write, and do math well and live the American dream! Until the government can show undeniable evidence that this is necessary, I am opposed to data collection.

PUBLIC SUBMISSION

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Comment on FR Doc # 2016-22002

Submitter Information

Name: Lou Teff
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General Comment

We need to come off the nazi-like dossier mentality that government knows all about everyone. (The U.S. Consititution is meant to protect the people from the government, not the other way around!)

PUBLIC SUBMISSION

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Comment on FR Doc # 2016-22002

Submitter Information

Name: Lindsey Mills

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.

In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors but also their families and friends.

The US Department of Education has been found to have especially weak security

standards in its collection and storage of student data, and received a grade of D for its security protections.

In addition, preK-12 student data currently collected by state departments of education that would potentially be shared with the federal government include upwards of 700 highly sensitive personal data elements, including students' immigrant status, disabilities, disciplinary records, and homelessness data.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from PreK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

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Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0112
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

See attached file(s)

Attachments

CEP comments_v2

Commission on Evidence-Based Policymaking Comments

Docket ID USBC-2016-0003

To the Commission on Evidence-Based Policymaking:

      In support of the Commission's mission to "develop a strategy for increasing the availability and use of data in order to build evidence about government programs, while protecting privacy and confidentiality," I would like to submit the following comment in response to question #3: "Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?" Please note that the views expressed are entirely my own and do not necessarily reflect the views of my employer.

Based on my extensive experience working with government survey data, government administrative data, and linked survey-administrative data, I have developed an understanding of where some of the major gaps in the Federal Statistical System are, and how they could be addressed. Under the current system, research analysts who wish to access administrative data to analyze government programs face a number of important obstacles. The set of data elements relevant for completing a successful project are rarely housed at a single department or agency. For example, an impact analysis that seeks to understand the effect of a community college program on future earnings would require both education data and labor market data, which are typically maintained by separate agencies and require data sharing agreements to link the two types of data together, and coordination between the legal staffs at the two agencies. Broader evaluations that wished to compare outcomes across states would potentially multiply these challenges by fifty (one for each state). Even after obtaining data, researchers face additional hurdles when comparing across states and programs which each have their own proprietary databases which may not be directly comparable to each other or easy to link together. The burdens on both researchers and state/local agencies can quickly become insurmountable.

My comments focus on improving the measurement of and access to critical economic outcomes such as income, in-kind benefits, wealth, consumption, and savings with an emphasis of improving the quality and scope of existing federal tax data. I emphasize improving and expanding the use of federal tax data because this would create uniform data quality at one agency and would require fewer steps for researchers to obtain access. While some of my suggestions may at first sound like minutiae, I argue that these are in fact incredibly important issues for accurately assessing economic trends, performing comprehensive distributional analyses, and conducting program evaluation. I believe that even modest changes to existing tax forms would provide large improvements in data quality that are needed for statistical purposes, research, and program evaluation. In addition, an expansion of information return reporting would help close the gaps in existing data, which would substantially improve the scope of federal data and reduce the need for analysts to burden state and local government agencies. All of this

could be achieved while maintaining the strict standards for privacy and confidentiality that exist for tax data today.

Below I list my suggestions for improving and expanding information return reporting to make tax data more useful for program evaluation.

1.   Earnings and Total Compensation (IRS Form W-2)

Current IRS administrative records on earnings (W-2s) only contain earnings amounts that are subject to income and/or payroll taxes. Compensation that is not taxable typically does not appear on any tax form, frustrating attempts to accurately measure total compensation. The largest of such exclusions from the tax base include employer and employee premiums for health insurance.   Elective deferrals to retirement plans are also not income taxable although they are payroll taxable. There are therefore two potential problems—a lack of any information on certain types of compensation, and an inability to decompose total compensation into its various subcomponents which policy analysts directly compare about. There has been some recent progress. The W-2 has recently included under Box 12 the employer premiums for health insurance, for example. However, employee premiums are not available, nor are other non-taxable benefits such as commuting expenses. As a result, a large share of compensation remains invisible in tax data. Yet this compensation is important to accurately measuring worker well-being, considering policy alternatives around how different elements of compensation is taxed, and creating proper aggregates for the national accounts.

A "Box 0" could be added to the W-2 that has gross pay before any deductions are taken. This more closely aligns with desired economic concepts and survey questions on earnings and would allow program evaluation analysts to better measure full employee compensation which they cannot currently do with the W-2. In addition, individual components of gross compensation that are not already available on the W-2 could be added so that total compensation could be properly decomposed. For example, Box 12 could be augmented to include employer contributions (matches) to retirement accounts as there is no micro data currently available on this (only employee contributions are available). I would also recommend indicating whether an employee is vested under an employer-sponsored defined benefit plan. Currently, there is no information about defined-benefit plan participation in tax data. Although a decreasing share of workers have such plans, they are still important for public sector workers and for properly measuring economy-wide retirement plan participation.

2.   Wealth

Large amounts of financial wealth do not show up in any tax data (once exception is Form 5498 IRA balances). This is despite the importance of wealth as an indicator of well-being and as a measure of retirement preparation adequacy. Yet taxable income derived from stocks of wealth do show up on current information returns. A very small addition to forms 1099-DIV and 1099-INT would be to require beginning and end of year account balances on those forms in addition to the income elements already reported. This information is already maintained by administrators of those accounts so it would impose few additional burdens on the information return tax preparer. Not only would this information be incredibly useful for understanding the distribution of wealth and examining the impact of government programs on wealth accumulation, but it would also be helpful for corroborating the income information that is currently available on those forms.

There also is no existing information on individual account balances from 401(K) and other employer defined contribution plans—the primary intended savings vehicle for workers and a subject of much policy discussion. An information return issued for each account with its recorded beginning and ending year account balance, contributions, and withdrawals, would be extraordinarily useful for understanding savings decisions and considering policy interventions surrounding these plans.

3. Expansion of information return 1099s for research on program participation and poverty alleviation

Currently IRS data do no include information on transfer income that is excluded from taxation. For example, Supplemental Security Income is unavailable in tax data yet is an important part of the safety net. As a result, analysts who want to examine trends or program impacts on poverty and who would like to incorporate realistic features of the tax code as well as non-taxable transfer programs are unable to do so effectively with current tax administrative data. One alternative is to use income and program participation data collected from government surveys. Yet, survey data are known to suffer from income and program participation underreporting. Further, one of the promises of improved administrative data is the ability to follow individuals in a consistent way over time without sample attrition that is common in panel surveys. Expanding tax data to include safety net programs would put all the necessary information analysts would need for program evaluation in one place thus alleviating burdens of contacting many federal, state, and local agencies, signing interagency agreements, and dealing with data inconsistencies across states and programs.

One possible way to accomplish this would be for information returns to be filed by the appropriate departments/agencies for the following programs:

1. Veterans pensions

2. Supplemental Security Income

3. Public housing and section 8 vouchers

4. TANF

5. SNAP

6. WIC

7. LIHEAP

8. CCDF

etc.

A simple rule would be that any transfer program receiving federal funding whether federal or state/local administered would have that agency complete a basic electronic form indicating who received the benefit, the months the benefit were received and the monthly amounts (when relevant) for that tax year. A copy of that form would be sent to IRS although those benefits would remain nontaxable. This would create uniform reporting of benefits and allow researchers to conduct nationwide program evaluations without signing separate data-sharing agreements with 50 states (and sometimes multiple agencies within a state). Because the reporting process could be automated, it would ultimately alleviate burdens on federal, state, and local agencies who must currently respond to individual researcher inquiries, draft legal agreements, and manage specific data transfer requests.

4.   Planning future changes to tax data

Besides modifications to existing forms, it is important to think about maintaining the scope and quality of tax data available as policy changes occur. As the tax treatment of different types of income is subject to change, information on that income should remain available as it is essential for statistical and program evaluation purposes. It also allows a direct analysis of the behavioral response to the particular change in the tax code if additional income becomes excluded from taxation. whereas it would be impossible to do this exercise if data on that type of income simply disappears from tax data when the tax law changes

.

Other economic trends may require future data adjustments as well. The rise of independent contractors and other types of contingent workers may mean that a larger number of people who receive earnings will not show up in the most readily available tax data—the W-2. Proposals to create new types of labor arrangements such as "independent workers" need to include discussion on how those arrangements would be adequately reflected in tax data.

I suggest that a panel of external advisors/stakeholders be created to issue non-binding recommendations to IRS to design and modify future tax reporting requirements. The panel would consist of those from other federal agencies and other experts in microsimulation and program evaluation who would benefit from improved tax data. For example, the Bureau of Economic Analysis requires adequate measurement of income aggregates (including non-taxable income) to construct the national accounts and would have relevant input about what concepts would ideally be reflected in the design of future tax forms. Obviously, the priority of the IRS must remain on tax administration but there are often small adjustments to forms that would be equally useful to the IRS but would make the data significantly more useful to other federal agencies and researchers.

I believe the above changes and reforms going forward would dramatically increase the utility and improve access to administrative data for statistical and program evaluation purposes while maintaining strong privacy protections. I am happy to discuss these issues further if desired.

Thank you for your time and attention.

Joshua W. Mitchell

Senior Economist

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0113
Comment on FR Doc # 2016-22002

Submitter Information

Name: Alan Tomko

General Comment

I believe the benefits of this effort are far, far outweighed by the potential drawbacks, and I do not support any invasion of my privacy, nor my children's.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0114
Comment on FR Doc # 2016-22002

Submitter Information

Name: Lisa Jones

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.

In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors but also their families and friends.

The US Department of Education has been found to have especially weak security

standards in its collection and storage of student data, and received a grade of D for its security protections.

In addition, preK-12 student data currently collected by state departments of education that would potentially be shared with the federal government include upwards of 700 highly sensitive personal data elements, including students' immigrant status, disabilities, disciplinary records, and homelessness data.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from PreK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

Yours,
Lisa A. Jones
High School Math Teacher
Missouri

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0115
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

Comments from the Robert Wood Johnson Foundation to the Commission on Evidence-Based Policymaking. Please see attached file.

Attachments

RWJF_CEP_CommentLetter_11142016_FINAL

Robert Wood Johnson Foundation

Office of the President and CEO

November 14, 2016

Ms. Shelley Martinez
Executive Director
Commission on Evidence-Based Policymaking

Docket Number: 160907825-6825-01
Commission on Evidence-Based Policymaking Comments

Dear Ms. Martinez:

The Robert Wood Johnson Foundation (RWJF) is pleased to have the opportunity to provide comment on the Commission on Evidence-Based Policymaking (CEP).

Building a Culture of Health

RWJF is the nation's largest philanthropy devoted solely to health. We believe that good health and health care are essential to the well-being and stability of our society, as well as to the vitality of families and communities. Evidence-based policies, programs, and laws are the key to spreading what works, making them a cornerstone of a Culture of Health, where everyone has a fair opportunity to be as healthy as they can be.

We commend the sponsors of the Evidence-Based Policymaking Commission Act (P.L. 114-140), U.S. House Speaker Paul Ryan (R-WI) and Senator Patty Murray (D-WA), for their efforts to ensure that evidence and measurement guide our decisions at every level of government. We support CEP's mission to develop a strategy for increasing the availability and use of data in order to build evidence on government programs and policies, while protecting privacy and confidentiality. For nearly 45 years, RWJF's research and evaluation efforts have provided insight and a strong appreciation for the power of evaluation, data access, and data use in creating change. As such, we commend you in this new endeavor and we appreciate the opportunity to comment as the CEP works to understand how data, research, and evaluation are used to build evidence and how best to strengthen the government's evidence-building efforts going forward.

RWJF's comments will focus primarily around evidence and data systems. We would like to emphasize the following areas of our comment letter:

1) To promote the best evidence, we need to be open to expanding the universe of acceptable methodologies that measure impact and we must understand context.
2) Achievements made thus far to improve data access underscore the need to ensure that these gains continue and that we use the power of technology to make even greater advancements.
3) While data access and evidence-based decision making moves forward, we need to be mindful that data quality, access, and use varies greatly. There are great technical assistance needs among data systems at all levels of government and service delivery.

Evidence

RWJF's *Culture of Health Action Framework* seeks to help transform a broad range of sectors and a variety of individuals all involved in building a Culture of Health into four interconnected action areas and one outcome area:

1. Making Health a Shared Value
2. Fostering Cross-Sector Collaboration to Improve Well-Being
3. Creating Healthier, More Equitable Communities
4. Strengthening Integration of Health Services and Systems

Taken together, our goal is for these action areas to lead to one outcome area: improved population health, well-being, and equity. The framework identifies the drivers of the change needed and a system of measures to monitor our progress toward our goal of improving population health, well-being, and equity.

Given our experience developing and vetting the *Culture of Health Action Framework* and our strong tradition of building and using evidence, RWJF offers two recommendations for building the evidence-base for policy making: 1) expand the methodologies; and 2) consider the context and capacity to build evidence at the time of policy and program implementation.

Expand Methodologies: The word 'evidence' suggests rigorous, clinical analysis of an implemented program or policy intervention with a randomized control trial (RCT) methodology. RCT methodology is one way to attribute causality. However, well-known limitations of RCT can often undermine their use. Moreover, for many entities, the RCT process is both costly and time-consuming. Therefore, RWJF recommends expanding the universe of acceptable methodologies that are capable of attributing causality, for example: quasi-experimental data, natural experiments, and difference-and-difference models. In addition, at the time of implementation, programs should pay careful attention to implementation and consider models that could generate the random variation needed to evaluate, and build evidence for, a program in the future.

For example, our national research program, *Policies for Action*, accepts various methodologies that benefit from natural or statistical variation to attribute causality. One recently funded study

will link data from a national food retailer with data from the U.S. Department of Agriculture's the Supplemental Nutrition Assistance Program (SNAP) to understand the causal role of SNAP provision on the choice of food purchases and nutritional content.

In addition, we often leverage powerful work at the communities and states level. This work provides a natural laboratory of study for policies, programs, and practices. Study of state and community level policy change can identify the impact of policies that show promise. For example, through our tobacco policy research, we were able to promote the use of natural experiments to identify the role of tobacco taxes, smoke-free laws, and tobacco 21 laws in reducing teen and adult smoking. We continue to use these natural experiments methodology today to study laws governing e-cigarettes and smoke-free environments.

As another example, we partnered with others to fund a study of Oregon's Medicaid System. The lottery system implementation design was essential to providing the random variation needed to study the causal impact of the Oregon Medicaid Experiment. This research demonstrated Medicaid's impacts on outcomes of significant policy interest in United States. In addition to understanding the role of Medicaid in improving health related outcomes we were also able to identify Medicaid's role in improving the financial and mental well-being of families.

Consider the Context for Evidence Building: We believe context is extremely important to building evidence. Even the highest quality evidence may not be used effectively to inform decisions if it is deemed irrelevant, infeasible, or difficult to interpret. It is essential to expand the universe of acceptable evidence creating methodologies to include methodologies designed to rigorously understand the context for using evidence. This context includes the end-user's values, needs, and capacity to access and analyze the evidence.

As we developed our *Culture of Health Action Framework* we engaged a diverse group of stakeholders. As a result, we have to change our thinking. If we are going to use evidence in the policymaking process, multiple stakeholders must value the goals and outcomes of the policies. For example, our efforts to promote the use of evidence-based policy to achieve our goal will be enhanced if keeping everyone as healthy as possible is a core value held by all stakeholders.

Also, the research and review process driving the *Culture of Health Action Framework* illustrated that the demand for evidence-based programs and policies is greater than the supply. We have only scratched the surface on what it will take to build the evidence and we have a long journey ahead. We encourage the CEP to focus on investment needed to improve the research infrastructure. This research infrastructure is necessary to rigorously build evidence and should include an emphasis on collaboration and partnership. Partnerships between researchers, service providers, and large institutions–both governmental and corporate–can improve the capacity to develop evidence.

Understanding the policy and program implementation, including the context and capacity for building evidence is essential to improve and replicate evidence-based policies. In addition, at the time of program implementation, data systems need to be developed and monitored to understand the needs, values, and capacity to assess, analyze, and innovate. For example, our

work on Complete Streets Policies documents how communities may work with their own urban planners, Departments of Transportation and engineers to address the community's needs, develop policy changes, and create a data collection and monitoring plan to ensure the implemented changes in policy achieve outcomes that the community desired and valued.

Data Systems

RWJF's *Culture of Health Action Framework* details a measurement strategy that is reliant on the data systems we have at our disposal. This includes data that we collected over the past nearly 45 years of work as well as data from outside sources. We followed five criteria to select these measures: availability of national data, application across time, representation of the broad determinants and upstream drivers, utility and understanding for multiple stakeholders, and ability to address of equity. This measurement selection process taught us many lessons. Below we will highlight the most salient lessons for your work.

Data Access and Data Linking: RWJF commends the efforts of individuals like Todd Park, who served as the Obama Administration's Chief Technology Officer. Efforts of these individuals have leveraged current and developing technologies to create open data platforms. These data platforms should be a model for the future. For this model to maintain and ensure future success, we must continuously push technological growth.

To create an open data platform, ideally the United States would have a centralized and open data warehouse that would be easily accessible by researchers. This data warehouse would have multiple data sets that could serve as a data backbone. These backbone data sets would be linked to other administrative data sets, surveys or other data sets.

Data systems to serve as back bones of the data infrastructure exist. For example the Internal Revenue Service (IRS) and the American Community Survey (ACS) hold extremely rich longitudinal data. These data can be linked to other sources of data, across multiple federal and state agencies. In addition, we encourage the use of, and linkages to, data collected by mobile devices via GPS systems. The resulting data system would be powerful natural resource for the United States. Rigorous analysis of these data systems and the research produced could provide insight and, potentially, real time information on how to achieve improvements in the drivers of population health, well-being, and equity.

For a project with the National Academy of Medicine RWJF convened a panel of 17 experts to discuss the reasons why a national data system was needed to study human development over the life-course (such a study is important for the future of the United States and is not being considered or funded under current efforts). The resulting perspective papers describe how such a study could be designed in a cost effective manner by employing a diverse set of existing data sources, collected both administratively and passively from mobile devices, social media, and crowd sourcing platforms. These data can be linked through GPS and common identifiers. Without such a data system, the United States is at a comparative disadvantage relative to other countries that can follow children from birth to adulthood and ensure outcomes are achieved for these cohorts.

As mentioned above, the 17 experts who authored the National Academy Perspective Papers encouraged maximizing the use of existing technologies. We encourage the Commission to consider using the full benefits of existing technologies not only in data collection, but also, to reduce the transaction costs of data use and data access. This will improve the effectiveness of evidence through improving the use of the optimal data for a given task. As researchers avoid transaction costs, they will use the most accessible data in lieu of the most appropriate data. It is essential to keep the transaction costs of the data systems as low as possible. As transaction costs fall, data access and linkages will be facilitated and the quality of the research, monitoring and effective policy making will improve.

For example, through our Policies for Action research program, we have witnessed that governments using technology optimally create accessible data systems. These accessible systems closely monitor and act on challenges as they arise. Using data from both the State of New York and New York City, researchers at New York University are able to study how changes in the location of health services are impacted by access to transportation. They are able to link transit modalities with patterns of health care service use and are able to study the ways in which public housing rehabilitation projects impact health. Through the use of these newly linked and powerful data, researchers are making ground breaking change by developing a measure of housing-sensitive health conditions that will enable physicians to understand the impact that housing has on health and allows physicians to understand what symptoms may result from low housing quality.

Investing in Data Quality: It has been our experience that public or private service organizations working within communities often produce data systems, or administrative data, and these data are important and essential tools that could be used to monitor improvements in health equity. From this experience, we caution the implicit assumption that all administrative data and data systems are useful to researchers. Data held by these organizations may not be robust enough for use in research and may require a tremendous amount of technical assistance before they can inform researchers.

Many of our grantees working tirelessly to advance health equity are nonprofit service providers or on the ground community-based organizations. Focusing on the need for administrative data places these small nonprofits at odds with the evidence based programming model. There is a balance; these trusted partners are working at a scale and level of community engagement that allow us to monitor efforts with the appropriate level of analysis. Linking these disaggregated datasets with large administrative data sets create a very powerful tool for us to monitor: context, needs, and values.

We recommend providing technical assistance to nonprofit service providers to promote building usable data systems and integrating data systems to ensure we are meeting the data needs necessary to build evidence on programs that serve the most vulnerable populations. This assistance is necessary because the quality of data held within a system varies greatly across administrative data systems. As an example, we have invested in a public-private partnership that is fostering cross sector collaboration. This partnership aims to overcome the silos and create long-lasting systems change by integrating services across the child welfare agency, the local housing authority, housing and homeless service providers, and other partners in five

communities within the United States. This program is being evaluated using a RCT methodology. The evaluator's initial plan for the RCT evaluation was to include the use of administrative data systems across the participating agencies. This would have reduced the cost of the RCT evaluation. Unfortunately, many of the administrative data systems from participating agencies were not useful. The initial plan was implemented after additional resources were deployed to ensure the administrative data could be used during the evaluation and in the future.

We encourage the CEP to consider ways of providing resources, to community-based programs and other small nonprofits to help them develop their data systems in a way that will allow for linkages to the larger data systems. For example, to facilitate building the data infrastructure of community-based programs, research funding opportunities at the federal level could:

- Encourage collaborations (not just financial relationships) that can provide these community based organizations with ongoing technical assistance to build and maintain their data systems for use in research.
- Incent linking community data with other data sets and systems.
- Consider what and where we should build evidence and, then, ensure the data systems in place create and maintain that evidence over time.

Conclusion

Our nearly 45 years of experience informed these comments. RWJF appreciates the opportunity to provide input and commends you in this new endeavor as the CEP works to understand how data, research, and evaluation are used to build evidence and how best to strengthen the government's evidence-building efforts going forward. We stand ready to provide more details and information at any time.

Sincerely,

Risa Lavizzo-Mourey
President and CEO

PUBLIC SUBMISSION

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Submission Type: Web

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0116
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I'm opposed to tracking of students of any age in a national data base. The thought that anyone is, additionally, considering linking such a database to anything accessible by future employers or anyone else is APPALLING. Our country, the land of the free -- where privacy rights of the individual are expressly enumerated -- should not be planning anything of the sort. As a citizen, I'm outraged that my own government -- with the help of certain individuals and corporate interests -- keeps putting out propaganda to deceive citizens into accepting this sort of invasive manuevering. As a parent, I'm doubly infuriated. Please knock it off and stop telling me that bad is good!

Any information you may wish to collect should be PII free. Period.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0117
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.

In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors but also their families and friends.

The US Department of Education has been found to have especially weak security

standards in its collection and storage of student data, and received a grade of D for its security protections.

In addition, preK-12 student data currently collected by state departments of education that would potentially be shared with the federal government include upwards of 700 highly sensitive personal data elements, including students' immigrant status, disabilities, disciplinary records, and homelessness data.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from PreK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0118
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

The Association for Career and Technical Education (ACTE) appreciates this opportunity to provide feedback on the work of the Commission on Evidence-based Policymaking through the Commission's recent solicitation for public input (Federal Register Docket ID USBC-2016-0003). Please see the attached for more information.

Attachments

CEBP-ACTE-Response-Nov2016
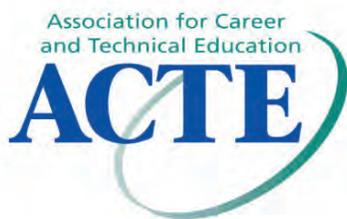
Association for Career and Technical Education
1410 King Street, Alexandria, VA 22314
Toll-free: 800-826-9972 • Fax: 703-683-7424 • www.acteonline.org

November 14, 2016

Chairperson Katharine Abraham, University of Maryland
Co-Chair Ron Haskins, Brookings Institution
Commission on Evidence-Based Policymaking
Docket ID USBC-2016-0003

Dear Chairperson Abraham, Co-Chair Haskins and commissioners,

Thank you for this opportunity to provide feedback on the work of the Commission on Evidence-based Policymaking through the Commission's recent solicitation for public input (Federal Register Docket ID USBC-2016-0003). Through its examination of federal administrative and survey data, the Commission has the opportunity to facilitate an improved education and workforce data system that assists educators and industry partners in improving education and training and helps students and workers of all ages make informed decisions about their futures.

The Association for Career and Technical Education is the nation's largest not-for-profit association committed to the advancement of education that prepares youth and adults for successful careers. ACTE represents the community of CTE professionals, including educators, administrators, researchers, guidance counselors and others at all levels of education. ACTE is committed to excellence in providing advocacy, public awareness and access to resources, professional development and leadership opportunities.

ACTE submits the following description of challenges and recommendations for action, which are most relevant to the Commission's questions 3, 5, 6, 7 and 9. In addition to the following comments, I direct your attention to the responses submitted by the Workforce Data Quality Campaign and the Postsecondary Data Collaborative. ACTE endorses these responses, which address some of the topics raised here in greater depth.

The Challenge

Key challenges in the current education and workforce system are a lack of access to data on student attainment of non-degree credentials, including postsecondary certificates, licenses and industry-recognized certifications; and a lack of access to employment and earnings data.

Addressing these gaps will enable students and workers to make better-informed plans about education and career pathways; help educators and engaged business partners to improve programs; and support better evaluation and informed policymaking.

Individuals are increasingly pursuing credentials beyond those awarded directly by postsecondary institutions, including certifications awarded by third-party industry providers as well as licenses awarded by state agencies. States such as Florida and Kansas are beginning to validate and incentivize student attainment of these awards. However, institutions and state education agencies currently have little access to data on industry-recognized certifications and licenses. There are also gaps in the collection of data on postsecondary certificates awarded by colleges.

In addition, while required for performance measures in both the Carl D. Perkins Career and Technical Education Act and the Workforce Innovation and Opportunity Act, access to employment and earnings data is limited. Datasets are fragmented, with key information, such as occupation, missing in many cases. States have tried to follow students and workers across state lines, but participation in linked datasets such as the Wage Record Interchange System (WRIS/WRIS2) and the Federal Employment Data Exchange System is voluntary, and many states lack the capacity and resources to pursue this work.

Recommendations

1. Ensure that data requirements and definitions align across federal programs through common measures, as appropriate.

2. Require data sharing within and among states and local areas to better track post-program outcomes, including further education and employment.

3. Provide guidance on the Family Educational Rights and Privacy Act (FERPA) to clarify allowable data sharing with workforce and economic development agencies and third-party industry certification bodies for evaluation purposes.

4. Include information in data systems on certificates, licenses and industry-recognized certifications earned by students.

5. Ensure postsecondary data systems include all students, including returning and part-time students, and their short- and long-term outcomes.

6. Expand the use of labor market information in program evaluation and ensure such information is accessible to students at the program level.

7. Eliminate the ban on a federal student unit record data system to ease data collection and reporting burdens. Although the federal government is banned from retaining individual-level data, much of this information is already collected and held by a range of agencies and institutions. Bringing this data together in one system, with appropriate protections for privacy

and security, would reduce burden on states and institutions, provide students and workers with a more comprehensive base of knowledge on which to make education and career decisions, and help policymakers more effectively evaluate programs and create sound policy.

ACTE appreciates the opportunity to comment and looks forward to the Commission's recommendations to facilitate evidence-based policymaking through a more robust education and workforce data system. If you have any questions or need additional information, please contact Catherine Imperatore, ACTE's research manager, at cimperatore@acteonline.org.

Sincerely,

LeAnn Wilson
Executive Director
ACTE

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0119
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

Respectfully submitted on behalf of the Data Quality Campaign

Attachments

Data_Quality_Campaign CEP Letter_Final

Chairperson Katharine Abraham, University of Maryland
Co-Chair Ron Haskins, Brookings Institution
Commission on Evidence-Based Policymaking
Docket ID USBC-2016-0003

Dear Chairperson Abraham, Co-Chair Haskins, and Commissioners,

The Data Quality Campaign (DQC) is pleased to respond to your request for comments as you work to develop recommendations that will help federal policymakers use evidence to inform policy decisionmaking while protecting privacy.

The Commission on Evidence-Based Policymaking (Commission) provides a momentous opportunity for the federal government to create a culture of data use and trust. Your recommendations will lay the groundwork for a new era of data-driven federal policymaking that moves away from a focus on compliance and uses data to empower people. While the Commission has been charged with making recommendations to the federal government, you must also recognize the ways in which your work can provide value to states, districts, and citizens.

Action by the federal government can provide value to state policymakers by serving as a template for state policy decisions, incentivizing certain state policy actions, or providing direct support to state policy efforts. Though states have led the way in developing education data systems and policies, the infusion of federal funding in the effort to develop State Longitudinal Data Systems (SLDSs) was a watershed moment which established a foundation for many subsequent state-level policy accomplishments. Moving forward, the federal government should better link existing federal data systems to provide meaningful answers to the most pressing education questions being asked by families and state policymakers.

This document provides responses to a selection of the Commission's questions where DQC thought that examples of state policy could inform the Commission's deliberation. As always, it's important for the Commission to remember that people won't use data that they don't trust and safeguarding privacy is paramount to building that trust.

1. Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

When developing its recommendations for federal policymakers, the Commission should consider DQC's Four Policy Priorities to Make Data Work for Students framework. By using this framework to inform the development of its recommendations, the Commission can help federal policymakers create a culture that values and uses data for continuous improvement and that empowers families, educators, and education leaders with the high-quality information they need and deserve to make great decisions for students.

MEASURE WHAT MATTERS: Be clear about what students must achieve and have the data to ensure that all students are on track to succeed.

- Be clear what questions you want to answer across federal agencies and collect the data you need—and no more.

- Support the development and use of purposeful data linkages across systems, sectors, and states.

MAKE DATA USE POSSIBLE: Provide teachers and leaders the flexibility, training, and support they need to answer their questions and take action.

- Lead by example and use data to inform decisionmaking and improve policy alignment within and across federal, state, and district levels.
- Build capacity within state and local agencies to support the effective use of data.
- Ensure that all educators have the skills and supports to use data in service of learning

BE TRANSPARENT AND EARN TRUST: Ensure that every community understands how its schools and students are doing, why data is valuable, and how it is protected and used.

- Provide useful information to the public about how the education sector is performing.
- Communicate clearly about how federal data is safeguarded and used to support student learning and incentivize states and districts to do the same.

GUARANTEE ACCESS AND PROTECT PRIVACY: Provide teachers and parents timely information on their students and make sure it is kept safe.

- Ensure that those closest to students have role-based access to the student data they need to support individual learning.
- Ensure that student privacy is safeguarded at every level as data is used in service of learning.

Data Quality Campaign staff would be pleased to provide additional details or action steps on any of these nine higher-level recommendations.

12. If a clearinghouse were created, what types of restrictions should be placed on the uses of data in the clearinghouse by "qualified researchers and institutions?"

As the Commission seeks to determine how to best facilitate secure researcher access to data needed to answer critical policy and practice questions, it may be helpful to look at the data governance and access practices of leading states. Both Maryland and Washington have developed strong data governance structures that allow the state to make consistent and purposeful decisions about researcher data access and to securely link data systems in ways that support research.

By allowing the "qualified researchers" at Johns Hopkins University School of Education's Center for Technology in Education (CTE) to have limited access to its data systems, the Maryland State Department of Education (MSDE) was able to answer critical questions about the success of its early intervention services program.

MSDE's partnership with CTE was created to answer three specific questions:

- What difference do early intervention services (EIS) make for children from birth to 3 years of age?
- What are the effects of EIS on future student performance?
- Which interventions work better than others?

As MSDE and CTE began the work of answering their initial questions, they found that they were stymied by silos of data. MSDE had electronic data systems, but these systems did not talk to each other. And it was difficult to accurately find information about children in these data silos without a unique student identification system. With the support of a federal grant, MSDE and CTE created a longitudinal data system and a unique student identification system. By using data to answer their critical questions, the state learned that children with disabilities who received earlier, more rigorous services were more ready for school than children with disabilities who did not. By third grade, 68 percent of early intervention students exited special education.

Another example of a qualified institution using education data for the public good is Washington's Education Research & Data Center – a state-legislated and state-funded effort to use the state's early education, K–12, postsecondary, and workforce data to answer the state's own questions about its students, schools, and pathways and to inform policy decisions. The Center is responsible for defining the purpose and appropriate uses of Washington's state longitudinal data system and is accountable to the governor and legislature. The Center's activities include protecting and maintaining data as well as determining data ownership and access. In addition, the Center is responsible for making sure the data system's activities are transparent.

14. What incentives may best facilitate interagency sharing of information to improve programmatic effectiveness and enhance data accuracy and comprehensiveness?

The Commission should recognize the crucially important role that federal policy can play in helping state and federal agencies shift away from a compliance culture and facilitate appropriate sharing of data. While states' direct investments in data infrastructure have been critically important to using education data in service of student learning, it is ultimately policy that affects change in ways that are rapid, lasting, and consequential.

Throughout the (ongoing) process of creating an evidence-based culture in education, federal investments and policy incentives have been vital drivers of change. Many states had made some progress in building education data systems by 2009, but the infusion of federal dollars from the SLDS Grant Program was critical to securing state policymakers' interest and helped them move their systems from an emerging tool to a robust source of information. States responded to this "seed funding" by increasing their own investments to ensure long-term sustainability. While just a handful of states were funding their systems in 2009 when the bulk of the federal grant funds were distributed, 41 states were funding their data systems by 2014.

When it comes to federal policy incentives, the Commission should consider how federal programs have spurred the use of data to understand program effectiveness. For example, even though the Reading First program was not explicitly related to data, its requirement that states and districts use "scientifically-based" reading instruction incentivized the use of information to improve student outcomes. In addition, NCLB and ESSA have laid the framework for data collection and moved the education sector forward by requiring data be used for accountability. However, it was the Race to the Top competitive grant program that marked the first time that federal policy called specifically for using data for continuous improvement (e.g., delivering student growth data to teachers) rather than for building systems and using data for accountability (e.g., measuring annual yearly progress toward academic proficiency) and reporting (e.g., high school graduation rate). This innovation was critical

because it provided an opportunity for state policymakers to think strategically about empowering stakeholders with data and shifted the conversation from building data systems to data use.

Spurred by new data capacity and a focus on continuous improvement, states began to roll out innovative uses of data and policies to support them:

- Colorado garnered widespread praise with its student growth model as state leaders introduced it to the nation with a data visualization tool thereby helping non-statisticians understand the value of a complex data model at a glance.
- Arkansas provided one of the first direct student benefits from a SLDS by using its state data system to determine student eligibility for the Arkansas Challenge Scholarship.
- Kentucky linked its K-12 and postsecondary data to provide better information about how their students fared in postsecondary institutions.

16. How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?

Again, the Commission can look to leading states for examples of how securely connected data systems can be used to inform education policies and programs. From using cross-sector data to better understand and support underserved populations to creating early warning systems that keep more students on track to graduate to creating data reports and dashboards that inform families, educators, and policymakers, states are making data work for students in innovative ways. The federal government can also incentivize this data-driven policy improvement work through the use of pilot programs. For example, in 2005 the Department of Education launched a pilot program for states to develop new models of measuring student growth. Because of the federal government's leadership, many states now use the growth data based on these models as a factor in assessing the quality of educators and schools.

The following state-level examples of data-driven policy improvement could inform the Commission's recommendations:

- In California, a study linking child welfare and education data uncovered an "invisible achievement gap" between children in foster care and other students. The research findings spurred widespread state attention and reforms targeted to this population.
- Chicago Public Schools has used data to keep high school freshmen on track with great results (the on-track to graduation rate went from 57 percent in 2007 to 84 percent in 2013). The district could not have gotten these results without research to identify academic pathways and effective interventions.
- Arkansas uses its state data system to inform students, parents, and educators about whether a student is on track to receive the Arkansas Challenge Scholarship.
- Georgia combined local data with state-level resources and made using education data in meaningful ways easy. Now all Georgia teachers can easily view each of his or her students' progress over time in different subjects and create personalized learning activities that build on strengths and fill gaps.
- Maine provides funding for technology that allows parents to access their child's longitudinal data through a locally managed portal. These data help parents understand whether their child

is on track for success in college and career and how well their school compares to others in the area.

- [Hawaii reports on a number of college and career readiness indicators](#), such as postsecondary enrollment, credit accumulation, and persistence; this valuable information on where students go after graduation, how well they are prepared for college and beyond, and how states can better support students in the transition from high school to college can only be generated by connecting data from the state's K-12 and higher education data systems.
- [Colorado's SchoolView](#) tool provides publicly available education data and analyses, including a growth model and related reports on academic growth across the state. The state and districts use this information to inform statewide policy decisions and classroom practices.

18. How can or should program evaluation be incorporated into program designs? What specific examples demonstrate where evaluation has been successfully incorporated in program designs?

The federal government has taken steps to prioritize program evaluation in education data policy, including through the SLDS grant program which identifies evaluation as one of six data use priorities that states should address. The Commission can look to the SLDS grant program language and to state program evaluation designs (such as Oregon below) for examples of how evaluation can be embedded into any program to meaningfully support continuous improvement.

The Oregon Department of Education's (ODE's) [Direct Access to Achievement (DATA) Project](#) is an example of a program that successfully integrates evaluation mechanisms into its design. The DATA Project aims to improve student achievement by training teachers about strategies for accessing, analyzing, and using data to target instruction to the needs of individual students.

Although the main participants are K–12 districts, valuable feedback comes from university representatives who meet with the project director quarterly to receive updates on project activities, and then identify issues and concerns related to teacher and administrator training. The project's professional development model consists of five phases: field input, in-service training, job-embedded professional development, pre-service training, and evaluation.

 After just two years, results indicated that teachers have made tremendous progress in adopting classroom-level data-driven decision making, connecting data to their teaching approaches.

Data Quality Campaign staff welcome the opportunity to further discuss these recommendations, and we are optimistic about the opportunities for the Commission to help ensure that data works for students and helps meet our nation's diverse education and workforce goals.

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0120
Comment on FR Doc # 2016-22002

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General Comment

I am firmly against the efforts of the Commission on Evidence-Based Policymaking (CEP) which is to create a longitudinal higher education/workforce database. This database is presently banned by federal law and must remain so.
It is paramount that student privacy and parental consent be preserved because children belong to their parents - not to the federal government.
A higher education/workforce database would undoubtedly be used to psychologically profile students by using highly personal, identifiable, and sensitive socioemotional data. Inevitably the data would be shared with third party entities and would also be susceptible to hackers.
This federal database would be used to drive students into vocations designed by the federal government. Parents together with their children are the only ones who should determine any future vocational plans for their families.
To be perfectly honest, the federal government has done a deplorable job any time it involves itself in education. The Common Core Standards Initiative is case in point. The CCSI is being used to indoctrinate students into the social justice agenda rather than strengthening students' academic achievement. Because the U. S. Department of Education itself is unconstitutional, then any programs designed by it are unconstitutional.

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General Comment

The October 21, 2016 hearing of Commission for Evidence-Based Policymaking
produced many witnesses who spoke in favor of data collection and the benefit they
would receive from it. There was only one witness who expressed deep concern about
the potential invasion of privacy and illegality of such efforts. It is clear from the
Supplemental Information, that the CEP will be looking for ways to remove existing
prohibitions, like the PPRA, which specifically states that the federal government shall
not collect information from student and parent surveys, to facilitate the collection of
data. Rest assured that the witness, Emmet McGroarty, was speaking for thousands of
parents across this country like myself who have not warmed to the idea of lifting the
restrictions currently in place which keep the government from collecting personal
information on our children.

While it is beginning to feel like a tired phrase, it still bears repeating with regards to the
work of the CEP. The 10th Amendment of the U.S. Constitution makes clear that any
powers not specifically enumerated therein remain with the states. Education is not one
of the constitutionally enumerated federal powers and therefore any educational program

or policy generated at the federal level is unconstitutional, regardless of whether there is a little or a massive amount of data to support such policies. Efforts by the federal government to collect data to support federal education policy are therefore unconstitutional and unnecessary.

In addition, the creation of a federal unit record of individual students violates the 4th amendment of the Constitution which guarantees the right of due process. A person must be charged with a crime and a warrant from the court issued before the wide scale collection of personal data about that person can be begun. Any system that collects individual student data without the informed consent of the adult responsible for that child, and a process for review and correction of such collected data violates the Constitutionally guaranteed right to privacy.

As to the work of the CEP itself, it is focused on figuring out "how to increase the availability and use of government data in support of evidence-building activities related to government programs and policies, while protecting the privacy and confidentiality of such data." This amounts to two diametrically opposed goals; the broad sharing of information and the protection of such information. While I am very much opposed to the collection of student data at the federal level (or through identically created individual state longitudinal data systems) I recognize that the Commission will be responding to their mandate to find ways to collect such data and therefore strongly urge the Commission to err on the side of the second goal, protecting the data and, when making its recommendations, resist the temptation to collect some of the very personal data proposed by the Data Quality Campaign which, examples of recent data breaches have shown, cannot realistically be protected.

As members of the ASA you know that 100% sampling is not necessary in order to produce statistically relevant results. Therefore an individual student record for every single child is unnecessary. Further, you are well aware that attempting to draw causative conclusions regarding data not collected in a controlled experiment is at best inaccurate and borders on unethical. George Borjas a respected labor economist of the Harvard Kennedy School, in his recent book "We Wanted Workers," which looked at national immigration policy from a statistical perspective, wrote, "Social scientists in general, and economists in particular have done a very good job of convincing many people that the mathematical models we build and the empirical findings we generate can be the foundation for a 'scientific' determination of social policy... Nevertheless, I happen to believe that the idea that mathematical modeling and data analysis can somehow lead to a scientific determination of social policy is sheer nonsense. Social policy could not be scientifically determined even if there were universal agreement on the underlying facts. Ideology and values matter as well." (p. 198) To give Congress policy recommendations with the apparent backing of scientific statistical analysis of data gives them a false sense of conviction that they are doing the right thing with the policy.

The only proper use of educational data by the federal government would be in the form of a research clearinghouse of state policies with the associated aggregate data to demonstrate such policies' effectiveness in producing the desired outcome. Any large

scale collection of raw individual data is nothing more than a fishing expedition to find data to support a predetermined policy. As a parent, I strongly object to this practice and urge the Commission to reject a federal unit record system.

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General Comment

See attached document.

Attachments

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**Comments to the Commission on Evidence-Based Policymaking
from Gordon Berlin, President of MDRC**

Docket ID USBC-2016-0003

November 14, 2016

Thank you for the opportunity to offer some thoughts on the opportunities and challenges facing effective evidence-building for you to consider in your important work with the Commission on Evidence-Based Policymaking.

My name is Gordon Berlin, and I am President of MDRC, a nonprofit, nonpartisan education and social policy research organization that is dedicated to learning what works to improve policies and programs that affect the poor. Founded in 1974, MDRC evaluates existing programs and develops new solutions to some of the nation's most pressing social problems, using rigorous random assignment research designs or near equivalents to assess their impact.

The federal government spends billions of dollars on policies and programs designed to improve the human condition; ameliorate poverty; increase employment, earnings, and income; invest in education to build human capital; and ensure America's competitive position in a technologically advancing world. But to make a real difference, to ensure a return on investment for both taxpayers and the beneficiaries of these programs, we have to do things that actually work.

Over the last decade and a half, during a period defined in the public consciousness by political partisanship, the legislative and executive branches have quietly forged a bipartisan consensus around the need to build evidence of effectiveness that would ensure high rates of return on investment for the nation's social programs. The establishment by Congress of the new Commission on Evidence-Based Policymaking is only the most recent example of this consensus.

My comments focus on the following issues: putting rigorous evidence at the center of policymaking, improving access to administrative data (while acknowledging its limitations), protecting confidentiality, bolstering the federal research agencies, addressing process and procurement issues, and maintaining the independence of third-party evaluators.

Putting Rigorous Evidence at the Center of Policymaking

The Commission has a great opportunity to offer recommendations to solidify the gains made in promoting evidence-based policymaking over the last two decades, particularly in bolstering the evaluation functions of the federal government and in making the use of rigorous evidence in policymaking more prevalent.

At the broadest level, I think the Commission should use its mandate to recommend that the federal government:

Validate the role of independent evaluation of programs and policies in the federal government: Evaluation findings that are credible, relevant, accurate, and timely are critical for policymakers and practitioners to make informed decisions about how to spend the resources of government. This is an issue of some urgency in a time of severe budget constraints and fiscal austerity. As is true for the federal statistical agencies, certain principles should underpin federally supported evaluation: relevance to policy issues, credibility with subjects and consumers of evaluations, and independence from political and other undue external influence. By upholding these principles, evaluations are well-positioned to provide the information that policymakers and the public require.

Create a culture of continuous improvement: Rather than being focused on up-or-down judgments about programs or policies, government must develop incentives for using research evidence to make programs more effective over time — just like a business committed to becoming a dynamic learning organization. A good example is the Maternal, Infant, and Early Childhood Home Visiting (MIECHV) program, the largest evidence-based program of the era, which provided $1.5 billion in funding for home visiting programs over five years. There are several elements of MIECHV worth emphasizing:

- Prior evidence was used to influence how federal funds could be spent, making it more likely that the funds would make a difference for families.
- The legislation recognized that there were areas where home visiting was not as effective as desired and offered states funds to test innovative approaches.
- Funds were set aside for research to make sure that learning continued under MIECHV and could influence future realizations of home visiting.

Build on the tiered evidence strategies embodied in the Investing in Innovation Fund ($650 million) at the U.S. Department of Education, the Workforce Innovation Fund ($125 million) at the U.S. Department of Labor, the Teen Pregnancy Prevention Program ($110 million) at the U.S. Department of Health and Human Services (DHHS), and the Social Innovation Fund ($50 million) at the Corporation for National and Community Service. These funds set clear guidelines about standards of evidence and provided incentives for both innovative new programs and, perhaps more importantly, for testing the scaling of models with evidence of effectiveness — truly the next frontier in the evidence-based policymaking agenda.

Embed evidence within existing funding streams: As the MIECHV example illustrates, when we have evidence of what works, we should build incentives into current funding streams to make sure that dollars follow the evidence. And while the innovation funds have been a source of new ideas from the field, incorporating resources *within* major program funding streams would allow federal agencies to develop evaluation agendas that would focus on continuous improvement of existing programs. A one-percent set-aside within these funding streams would both be an adequate investment and be cost-neutral.

Improving Access to Administrative Data (But Not Relying on Admin Data Exclusively)

In evaluating the effectiveness of social programs, researchers need ready access to administrative data, and the Commission's focus to date on improving federal, state, and local data systems is laudable. Research firms that are funded by federal agencies to evaluate programs often rely on data collected by states from employers on employment and earnings, including, for example, data that the states already report to the federal government for certain child support enforcement and other purposes. These data are housed in accessible form at the federal level within the National Directory of New Hires (NDNH) database. However, research contractors face severe restrictions in accessing this essential database for assessing whether federally supported programs actually work. Instead, they are forced to get the *very same data* directly from the states, at great cost to the federal government and at considerable burden in duplicative reporting for the states. If the NDNH database were made more widely available to evaluators (with appropriate privacy safeguards), it would enable Congress and the federal agencies to assess the impact that social programs have on jobs and earnings at much less cost and burden to the federal government and the states.

Similar opportunities exist for building robust data systems from the wealth of data about individuals' experiences with health care, public assistance, criminal justice, child welfare, school, and college systems. Integrated data systems would save time and money and reduce paperwork burdens in the conduct of evaluations, while providing comprehensive information about program effectiveness over time. The public sector has the data to build comparable integrated systems to track progress longitudinally and to enhance program performance, yet federal and states agencies (and their contractors) cannot regularly access and share data for evaluation purposes. We can do better. Agencies and their contractors need clear authority to access and link administrative data for evaluation purposes when it is housed at the federal level and similarly clear authority when it is housed at the state level. Government efficiency hangs in the balance.

At the same time, access to administrative data is not a panacea. And the importance of survey data should not be dismissed. There are at least four factors that affect the fit of administrative records for a research study.

- **Access**: What kinds of sign-offs, permissions, and review processes/approvals are necessary to get access?

- **Standardization**: Records that have already been compiled (e.g., in a state or national system) have common types and formats of information across lots of individuals, sites, etc. There is a single source, or a limited number of sources, to go to in order to collect data. However, the more decentralized the records, the more challenging the work becomes. For example, a project that spans multiple school districts may require transcript data, discipline data, attendance data, and enrollment data, which all vary across districts and which all need to be standardized by the researcher. This can be particularly laborious.

- **Completeness**: The two biggest ways that completeness can affect evaluations are in terms of (1) how many individuals, schools, etc., are represented (i.e., how many respondents/units have missing data, and is that "missingness" associated with particular respondent characteristics?) and (2) whether the variables necessary to

answer relevant questions are all represented in the database. Frankly, administrative records often do not include the data required to answer important questions. For example, in MDRC's welfare-to-work studies, the original 13 experiments were based entirely on administrative records with four key measures: employment, earnings, welfare receipt, and welfare amount. Did people leave welfare, did they do so for work, did they lose their jobs and return to welfare, did the program make participants better or worse off in terms of income, and did the program save government budgets money or cost more? What we could not learn is about effects on children. But as the project's early results found increases in employment and earnings and reductions in welfare that exceeded the cost of running the programs, many states moved to reduce the age of child exemption. Women with children under age 6, then age 3, then age 1 would be required to work in return for welfare. Now the central question became: would very young children be harmed if parents were required to find work? We needed a survey to answer this.

- **Data Lags:** Federal data sets like the National Directory of New Hires or tax records can have very long lags before the data are assembled, cleaned, and available for use in a study. This has significant implications for timeliness and limits the use of administrative data in quick-turnaround studies with multiple follow-up periods. The process to access National Directory of New Hires data, for example, is incredibly onerous and usually takes between one and two years, and only two years of historical data are retained in the database (although a researcher can request that data be retained for research purposes). This situation may improve as technology becomes more ubiquitous and efficient, but, given the pressures for quicker, cheaper evaluations, it still poses a major problem.

Protecting Confidentiality

At all levels and branches of government, there is a tug of war between those who are focused on improving program effectiveness and those who are concerned with protecting privacy. Staff responsible for managing data are rightly charged with keeping it secure and protecting privacy but too seldom with developing protocols for sharing it securely with other agencies and evaluators. Although the stakes are high and the opportunities significant, the program office that houses the data often has little or no interaction with the same agency's evaluation office. If these two objectives — measuring program effectiveness and safeguarding privacy — remain mutually exclusive, continued paralysis is the inevitable result.

The Family Education Rights and Privacy Act (FERPA) illustrates the challenge. Congress is considering amending FERPA because of concerns over threats to the privacy of student data, and meanwhile state legislatures have stepped in. Last year 47 state legislatures introduced more than 180 bills to address student data protection issues, a reaction originally prompted by public outcry over educational technology vendors and their use of children's information for advertising and commercial gain. Unfortunately, education researchers from academia and other nonprofit institutions have gotten swept up in the furor. Under current federal law, education agencies can share data with researchers only for research projects designed to benefit students and improve instruction — and only under extremely strict privacy conditions. But some are suggesting that Congress should significantly scale back even that authority. Indeed, many states are interpreting FERPA to preclude the sharing of any

individually identifiable data with researchers, even though that data would only be reported in aggregate form for policy purposes. Without access to student data, little education research could be conducted at all. The bottom line is that it's essential to continue to protect the security and privacy of student data, but we must be careful to not unintentionally end the analysis of student data for its original purpose: assessing and improving education.

I am confident that privacy and confidentiality can be protected while still allowing access for research. Congress could start safely by specifying required levels of encryption and protection using the highest standards established by the National Institute of Standards and Technology (NIST). The NIST standards are appropriate for research data that must be kept confidential to protect the privacy and well-being of study participants and the integrity of the findings, but for which disclosure of confidential data would not jeopardize national security.

Bolstering the Federal Research Agencies

Inconsistencies in federal authority to conduct independent research and evaluation pose additional hurdles for efficient evidence-building. To guide policy, research must be independent, objective, and reliable. However, the authorizing legislation establishing agency research departments does not always set forth these requirements — for example, the law governing the Institute of Education Sciences does, while the one over the Office of Planning, Research and Evaluation at the U.S. Department of Health and Human Services does not. When authority is clear, agencies and their contractors have less difficulty accessing data, recruiting sites, establishing data-sharing agreements, and getting local buy-in. For example, in our experience studying home visiting programs, we found states and localities willing and ready partners in a random assignment research design when legislation instructed the federal agency to make program funding contingent upon participation in the evaluation. In a complementary home visiting study that was not explicitly described by Congress, however, site recruitment proved difficult. The authorizing legislation establishing agency research departments should allow them the federal authority to conduct independent research and evaluation.

Further, the research arms of federal agencies should be charged with building bodies of evidence about what works to address broad and persistent problems. Agencies should create a portfolio of research about a problem's underlying causes and testing a range of possible solutions, always answering three questions: What difference did the program make, how did it do so, and why? To support that work, Congress could authorize federal agencies to set aside at least one percent of existing program funds for evaluation, a solution that is budget neutral. And because context matters, agencies should also be encouraged to pay attention to the systems in which programs operate — something federal agencies too seldom do. It is not enough to learn what works; introducing what works into broader systems and maintaining quality at scale are the next frontiers in evidence-based policymaking.

Addressing Process and Procurement Issues and Maintaining the Independence of Third-Party Evaluators

Finally, a few thoughts from the particular perspective of a federal research contractor. Procurement and process obstacles to cost-effective evaluations should be addressed.

The Paperwork Reduction Act is overly burdensome. While its goals are laudable, the Paperwork Reduction Act's requirements for clearance by the Office of Management and Budget (OMB) and for filing two public notices for every survey involving more than 10 people add time and money to fielding studies — as much as eight months or more between internal agency review and OMB clearance. Should the exact same rules that apply to nationwide rules and regulations that affect all citizens also apply to research and evaluations that affect a few hundred or even a few thousand people who volunteer to be part of the studies? This doesn't seem to make sense at the same time that agencies are under tremendous pressure to speed up the evaluation process and enhance the timeliness and relevance of the work.

The independence of researchers must be maintained. Most federally funded evaluations are conducted by third parties, including nonprofit and for-profit firms and academics, an arrangement that is supposed to guarantee the independence and integrity of the research findings and conclusions and protect them from political agendas. However, this independence — and the concomitant right of the researchers to publish (whether the government agency decides to publish or not) — is not always made clear in statutes, regulations, or contracts.

Federal funding contracts should strike an appropriate balance between the need for accountability on the part of government and the need for independence on the part of the evaluator. Funding contracts for social program evaluation include one of two data rights provisions: general and special. The special provision is not appropriate for research and evaluation contracts designed to build policy-relevant evidence; the general provision is appropriate for social program evaluations. The special rights clause is intended for production of data for internal use of government; the general clause provides a balanced distribution of rights between the government and the contractor and allows for wider distribution of the results of the research. The special rights clause was originally designed for activities in which the government has full ownership and control, as in a defense department procurement; the general provision was designed to govern products and knowledge that have broad applications and are likely to benefit and inform a broad range of stakeholders.

The general rights clause still protects government's interest in quality and accountability. To that end, it contains "alternate provisions" that are mandated in contracts for basic and applied research with universities or colleges and are permitted in other contracts upon agency determination that the alternate provision is appropriate. Alternate IV directs agencies to loosen the restrictions that apply to contractors under the general rights in data clause when those contractors are colleges or universities performing applied or basic research or when the agency determines that similar treatment is warranted for other contractors. Agencies can also add other clauses in Section H of the contract to ensure contractor accountability. We think that agencies should use the general rights clause, Alternate IV, for program evaluation by research contractors and use Section H for oversight and use of data.

The special rights clause leaves release solely in the hands of the government, a power that can and has led to work of a broad public interest never seeing the light of day. Dissemination is key. Good evaluation research is only valuable if decisionmakers know and understand it. Most agencies adequately fund the writing of research reports, but they rarely provide resources to disseminate research findings broadly and effectively, including creating

products that are accessible to wide policymaker and practitioner audiences and investing in dissemination techniques that leverage social media and other communications tools. Grantees have a natural incentive to disseminate. The special rights clause can eliminate that incentive.

Procurement rules can be counterproductive. Rules designed to improve government procurement of goods and services can create havoc in evaluation research — for instance, an 18-month follow-up survey may span fiscal years and the pace at which the survey will be fielded is difficult to predict, but the funding of that survey can't cross fiscal years. Research, demonstration, and evaluation projects are not readily severable. Given the need for long follow-up periods, studies may spread over five or more years. Under current procurement rules, multiyear federal evaluation contracts must be broken down into short renewable phases called "contract line items," or "CLINs," wherein contract requirements and dollar amounts must be specified separately. This has dramatically increased costs to administer and manage research, especially where there is a mismatch between activities required for a long-term research project and funding available under a contract line item. Under these restrictions, researchers have trouble, for example, entering into meaningful partnerships with program sites and participants when funding for an entire research effort is not guaranteed.

The Commission has the opportunity to secure the role of evidence in the making of social policy. But to do so it will need to tackle not just questions of principle, purpose, and policy but also the nuts and bolts of accessing, protecting, analyzing, disseminating, and using evidence to advance the public good. The effective functioning of this process will determine whether data does in fact become evidence.

Sincerely yours,

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PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0123
Comment on FR Doc # 2016-22002

Submitter Information

Name: Talib Madyun

General Comment

Y.O.U.R. Community Center welcomes the opportunity to provide comments to the Commission on Evidence-Based Policymaking (CEP). We offer input for questions 16 and 18 based on our experience as a grantee of a high-quality evidence-based program, the Office of Adolescent Health's Teen Pregnancy Prevention (TPP) Program. This program has been recognized as a pioneering example of tiered evidence-based policymaking, and represents an important contribution to building a body of evidence of what works. This includes high quality implementation, evaluation, innovation, and learning from results.

Y.O.U.R. Community Center was incorporated in 1997 and is recognized as a 501(c)(3) tax-exempt organization. The mission of Y.O.U.R. Community Center is to promote academic, cultural, social and emotional development; improve computer literacy; help build self-esteem; and strengthen leadership and confidence in and out of the classroom. Y.O.U.R. has served over 3,000 youth throughout Washington, DC. Our programs and services have provided positive youth development and made a meaningful and positive difference in the lives of youth through: education, emotional support, and social development. While participating in Y.O.U.R. programs, none of the youth have been lost to violence, been incarcerated, or become teenage parents. On satisfaction surveys, 90% parents and youth report a change in attitude after completing our program.

As a TPP Tier 1 sub-grantee we incorporate evidence into all aspects of our project. The program model we implemented was chosen from a list of those that had already been rigorously evaluated and demonstrated to change behavior.
We also used evidence to guide and improve our project throughout the grant period.

1. Over the past five years as a sub-grantee, our program has completed an evaluation using our pre/post test results to ensure that our practices and strategies are effective and if not effective, we have made adjustments in the curriculum. We have used a few different curriculums to try to work with the population of youth that we do. We have used Why Am I Tempted (WAIT), Game Plan and Hip Hop 2 Prevention (H2P). All have been successful, as we had positive results with the students we have worked with youth in the District of Columbia Public and Public Charter Schools.
2. This past year's results of pre and post survey revealed that there has been an increase in the number of youth who had engaged in sexual activity before going through our program, who have chosen to stop having sex after the program. This year's results showed that 75% of the youth reported that they would stop after the program concluded. This is up from 42% two years ago. We attribute these results to several things including adjusting and incorporating strategies used to reach our youth where they are and using facilitators who are closer to their age and look like them. Without compromising the integrity of the curricula that we use and ensuring that all objectives are met, we also made additions and adjustments and added also supplemental materials based on the age and demographics of the varying groups. We have learned that one size does not fit all.

3. In closing, we consider The TPP Program to be a prime example of high-quality evidence-based policymaking. It is one of the few government programs that uses evidence and evaluation criteria throughout the grant life cycle. Thank you for considering our input for the CEP. If you have any questions or need additional information, please contact me at (202) 291-3034 or talib@yourcommunitycenter.org.

Attachments

TPP Acomplishments

{Comments are due November 14, 2016. <u>Click here</u> for the submission link. Use this version of the letter if you were a TPP Program Tier 1 grantee, a State PREP sub/grantee, Competitive, or Tribal PREP grantee.}

Commission on Evidence-Based Policymaking Comments
Docket ID: USBC-2016-0003
Federal Register Number: 2016-22002

Youth Organizations United to Rise
YOUR Community Center
4913 14th St. NW
Washington, DC 20011

<p align="right">November 8, 2016</p>

Dear Chair Katharine G. Abraham, Co-chair Ron Haskins, and members of the Commission:

Y.O.U.R. Community Center welcomes the opportunity to provide comments to the Commission on Evidence-Based Policymaking (CEP). We offer input for questions 16 and 18 based on our experience as a grantee of a high-quality evidence-based program, the Office of Adolescent Health's Teen Pregnancy Prevention (TPP) Program. This program has been recognized as a pioneering example of tiered evidence-based policymaking, and represents an important contribution to building a body of evidence of what works. This includes high quality implementation, evaluation, innovation, and learning from results.

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successful, as we had positive results with the students we have worked with youth in the District of Columbia Public and Public Charter Schools.

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3. In closing, we consider The TPP Program to be a prime example of high-quality evidence-based policymaking. It is one of the few government programs that uses evidence and evaluation criteria throughout the grant life cycle. Thank you for considering our input for the CEP. If you have any questions or need additional information, please contact me at (202) 291-3034 or talib@yourcommunitycenter.org.

Sincerely,

Talib Madyun
Acting Executive Director
YOUR Community Center

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0124
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

Please do not remove the human component of deciding a child's future by adopting a national data base collecting and holding student data. While the idea of identifying a child's strengths and weaknesses and using that information to help them make decisions about their future is a good idea, the United Nation's idea of data collection and globalizing our nation's children, making them human capital, is unamerican and Hitleresque . As a teacher in the public school system in Texas, I have witnessed education go from it's original intent to a huge money making enterprise. The budgets are huge, and the accountability for spending that money is nonexistent. Research is beginning to speak loudly regarding the effects of screen time on the developing brain. Recent scientific research in the area of brain development and reading is being ignored. The present movement in education is another human experiment with no true research-based methods involved. Children are suffering and their futures are being co-opted for cold hard cash. Just because technology presents almost unlimited possibilities doesn't mean we should just keep pushing it's limits to see what will happen. Give the term "research-based" a true meaning, and hold someone accountable for it.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0125
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

See attached file(s)

Attachments

CEP Comment

ADVANCE CTE

November 14, 2016

Chairperson Katharine Abraham, University of Maryland
Co-Chair Ron Haskins, Brookings Institution
Commission on Evidence-Based Policymaking
Docket ID USBC-2016-0003

Dear Chairperson Abraham, Co-Chair Haskins, and commissioners,

On behalf of Advance CTE, the national association representing the state and territory leaders of our nation's Career Technical Education (CTE) system, I write in response to the Commission on Evidence-Based Policymaking's (CEP) recent solicitation for public input regarding increasing the availability and use of government data, while protecting privacy and confidentiality (*Federal Register* Docket ID USBC-2016-0003). Our members oversee secondary, postsecondary, and adult CTE across the country and have long championed the use of data to ensure CTE programs are adequately preparing all learners for lifelong career success.

We are extremely encouraged by CEP's ongoing examination of federal administrative and survey data as it provides an important opportunity to reassess the current federal data infrastructure which, in our view, remains too diffuse to provide meaningful and actionable information to key stakeholders. For a more exhaustive response to the overarching and specific questions posed by this solicitation, we direct your attention to the comments submitted by the Workforce Data Quality Campaign and the Postsecondary Data Collaborative, both of which we fully endorse and support.

In addition to those comments, which outline in greater detail a host of related recommendations that would support a more cohesive federal data *system*, we would like to respond in greater detail to the seventh question posed in this solicitation: "*What data should be included in a potential U.S. government data clearinghouse(s)? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?*"

At present, both the Higher Education Act (P.L. 110-315) and the Workforce Innovation and Opportunity Act (P.L. 113-128) contain statutory bans on the creation of a federal student-level data system (Secs. 113 and 501 respectively). These bans prevent policymakers from answering some of the most basic questions about the effectiveness of our postsecondary education and training systems, creates an opaque marketplace where consumers of postsecondary education and training have little ability to

discern value among providers, and creates an unnecessary administrative burden borne by postsecondary institutions.

The CEP should therefore incorporate a recommendation for Congress to repeal these bans in its forthcoming work over the next year. In order to fully leverage such an opportunity, the CEP should also recommend that federal agencies, such as the U.S. Departments of Education and Labor, engage with postsecondary stakeholders to design and implement a student-level data system for all postsecondary students. Such a system would create a national data set that would more accurately establish how students navigate through the postsecondary education landscape and into the labor market. Right now more than half of states have processes in place to track this sort of student progress, but that information is lost when students move out of state for further education or employment making these efforts scattershot at best.

Moreover, a national student-level data system should allow for the disaggregation of student data by key characteristics such as race/ ethnicity, socioeconomic status, and others to ensure that this information can be used effectively by policymakers at all levels of government to make more informed decisions about current and future investments in the nation's postsecondary education and training infrastructure. Finally, and equally as important, the CEP should articulate a series of strenuous data privacy and security policies to govern such a system, as part of this overarching recommendation.

Thank you for the opportunity to provide input into your ongoing efforts to improve upon our national data infrastructure and the utility of the information that it produces. We look forward to engaging further with the CEP and this work. Should you have additional questions or comments please contact our Government Relations Manager, Steve Voytek, at 240-398-5406 or svoytek@careertech.org.

Sincerely,

Kimberly Green
Advance CTE Executive Director

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0126
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

See attached file(s)

Attachments

Muhlhausen CEP Comment

Large-Scale, Multisite Experimental Evaluations Produce the Most Credible Evidence of Effectiveness of Federal Programs

Comments before
Commission on Evidence-Based Policymaking

Docket Number 160907825-6825-01

November 14, 2016

David B. Muhlhausen
Research Fellow
The Heritage Foundation
www.heritage.org

My name is David B. Muhlhausen. I am a Research Fellow at The Heritage Foundation. Based largely on my book, *Do Federal Social Programs Work?*,[1] my commentary specifically addresses question 16: "How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?"

The best way to improve the performance of federal social programs is to find out whether they are, in fact, effective. To accomplish this task, the Commission for Evidence-Based Policymaking, hereinafter referred to as the Commission, should recommend:

- Evaluations of federal social programs need to be experimental, meaning the use random assignment to allocate membership in intervention and control groups.
- Evaluations should be large-scale experiments that assess effectiveness in multiple locations throughout the nation.
- The term "evidence-based" should mean that experimental evaluations of a program model have found consistent statistically significant effects that meaningfully ameliorate a targeted social problem in at least *three different settings*.

The federal government's total debt is $19.8 trillion.[2] Given scarce federal resources, federal policymakers need to fund programs that work and defund programs that do not work. Americans, who fund these programs with hard-earned tax dollars, deserve better than Congress's current habit of funding programs that may not produce their intended results.

To plug this information gap, the evidenced-based policy movement seeks to inform policymakers through scientifically rigorous evaluations of the effectiveness of government programs.[3] In other words, the movement provides tools to identify what works and what does not work.

However, there is disagreement over what can be counted as evidence.[4] For example, should high-quality quasi-experiments be given the same level of scientific credibility as experimental evaluations? Not only should quasi-experiments not be considered as rigorous as experiments, but the federal government should place a much lower priority on performing quasi-experiments. Experimental evaluations are the most credible and accurate method by which to assess effectiveness. Quasi-experiments are not suitable substitutes.

For federal social programs, the best way to gain this knowledge is to conduct large-scale, multisite experimental evaluations that attempt to isolate the direct effects of social programs apart from other factors that affect the outcomes of interest. Thus, the Commission's focus should be on identifying ways to increase the number of large-scale multisite experimental impact evaluations of federally funded programs. This is why the Commission's inaugural meeting on July 22, 2016 that highlighted the quasi-experimental research is cause for concern.[5] Experimental designs are superior to quasi-experimental designs.

In experimental impact evaluations, the treatment or intervention is randomly assigned to one group, while the other group does not receive the treatment or intervention. The group randomly receiving the services is called the intervention or treatment group, while the group

not receiving the services is the control group. The findings for the control group serve as the counterfactual condition.

Experimental evaluations have high internal validity, while large-scale multisite evaluations have high external validity.

Threats to Internal and External Validity

The ability to make causal observations comes down to handling threats to internal and external validity. Validity refers to the truth or falsity of statements about cause and effect. Internal validity is the "basic minimum without which any experiment is uninterpretable."[6] Did in fact the social program being evaluated make a difference in this specific instance? To establish internal validity, some kind of control condition is required in order to determine what would have happened to the people in the intervention group had they not received the intervention. Any threat to internal validity is a hazard to the ability of the evaluation to make causal inferences.

Internal validity is concerned with making causal inferences.[7] Did, in fact, social program X cause outcome Y? There are several factors that threaten internal validity. A threat to internal validity is an objection that an evaluation design allows the causal link between the intervention and outcome to remain uncertain. The design is weak in some way. The design does not allow the person assessing effectiveness to have confidence in the results. If uncontrolled, these factors confound real effects.[8]

External validity deals with questions of generalizability. To what populations, settings, and times can the effect of a social program be generalized? For example, can the results of an evaluation of a delinquency prevention program in Baltimore, Maryland, be generalized to a similar program operating in Little Rock, Arkansas? Threats to external validity cast doubts on the extent to which the results of the social program as conducted would be duplicated with the same program at a different time, or place, or with different participants. Evaluators of social programs should strive to select evaluation designs that are strong in both external and internal validity.

External validity is concerned with questions of generalizability. To what populations, settings, and times can the particular effect of a social program be generalized? Threats to external validity casts doubts on the extent to which the results of a social program as conducted would be duplicated with the same program at a different time, or place, or with different participants.[9] In regards to social programs, there are four patterns of generalization. The *narrow-to-broad* generalization occurs when someone infers a causal relationship from the particular persons, setting, treatments, and outcomes of the original social program to a larger population.[10] This generalization can occur, for example, when a particular social program operating in Baltimore, Maryland, is assumed to have the same effect if implemented as a nation-wide program. Just because the social program worked in Baltimore does not mean that it will work everywhere. Some social programs will work under at least some conditions and not under others. Another example is the assumption that all types of drug treatment programs are effective based on the results of a particular drug treatment program.

Experimental evaluations are, by far, the best design for dealing with threats to internal validity. What about external validity? Experimental evaluations that are large scale—meaning large sample sizes—and are conducted in multiple sites have the most validity for making generalizations.

The Advantages of Experimental Evaluations

The impact of social programs cannot be estimated with 100 percent certainty. All such impact evaluations face formidable control problems that make valid estimates difficult. As a general rule, the more rigorous the research methodology is, the more reliable the evaluation's findings are.

Determining the impact of social programs requires comparing the conditions of those who received assistance with the conditions of an equivalent group that did not experience the intervention. However, evaluations differ by the quality of methodology used to separate the net impact of programs from other factors that may explain differences in outcomes between comparison and intervention groups.

Experimental evaluations are the "gold standard" of evaluation designs. Randomized experiments attempt to demonstrate causality by (1) holding all possible causes of the outcome constant, (2) deliberately altering only the possible cause of interest, and (3) observing whether the outcome differs between the intervention and control groups. In reality, we can never be 100 percent sure that all the potential causes (confounding factors) were held constant.

When conducting an impact evaluation of a social program, identifying and controlling for all the possible factors that influence the outcomes of interest is impossible. We simply do not have enough knowledge to accomplish this task. Even if we had the capability to identify all possible causal factors, collecting complete and reliable data on all these factors would likely still be beyond our abilities. For example, it is impossible to isolate a person participating in a social program from his family in order to "remove" the influences of family. This is where the benefits of random assignment become clear.

Because we do not know enough about all possible causal factors to identify and hold them constant, randomly assigning test subjects to intervention and control groups allows us to have a high degree of confidence that these unidentified factors will not confound our estimate of the intervention's impact.

Random assignment helps to ensure that the control group is equivalent to the intervention group in composition, predispositions, and experiences.[11] First, randomization means that the intervention and control groups will have an identical composition. The groups are comprised of the same types of individuals in terms of their program-related and outcome-related characteristics. Second, the intervention and control groups will have identical predispositions. Members of both groups "are equally disposed toward the program and equally likely, without intervention, to attain any given outcome status."[12] Third, the intervention and control groups will have identical experiences with regards to time-related processes, such as maturation, and history.

Because the intervention and control groups differ from one another by chance only, factors outside of the intervention that are related to the outcomes are assumed to be equally present in each group. Subjects whose characteristics may make them more responsive to treatment are just as likely to be in either the intervention or control groups. The intervention and control groups should have the same portion of subjects favorably predisposed to benefit from the intervention. Thus, outcome differences should be attributable to the intervention. In sum, randomization eliminates any systematic association between intervention status and the observed and unobserved participant characteristics, thus largely eliminating the selection bias that potentially contaminates other evaluation designs.[13]

In quasi-experimental designs, failure to remove the influence of differences that affect program outcomes leaves open the possibility that the underlying differences between the groups, not the program, caused the net impact. While quasi-experimental designs often use sophisticated techniques, experimental evaluations are still considered better at producing reliable estimates of program effects. For example, evidence in criminal justice policy indicates that quasi-experimental evaluations tend to find results contrary to the findings of experimental evaluations.[14]

After conducting a meta-analysis of 308 criminal justice program evaluations, Professor David Weisburd of George Mason University and his colleagues found that weaker evaluation designs are more likely to find favorable intervention effects and less likely to find harmful intervention effects.[15] They caution that quasi-experimental designs, no matter how well designed, may be incapable of controlling for the unobserved factors that make individuals more likely to respond favorably to the intervention.

Given that experimental evaluations produce the most reliable results, the Commission should promote the use of experimental evaluations to assess the effectiveness of federal programs. Given the underlying statute that created the Commission, it has a responsibility to focus on ways to increase the use of experimental evaluations to assess the performance of federal programs. Quasi-experimental designs, no matter how well designed, may be incapable of controlling for nonprogram factors that influence how participants respond to the intervention.

Due to the importance of criminal justice policy, Weisburd argues that researchers have a moral imperative to conduct randomized experiments[16] because of their "obligation to provide valid answers to questions about the effectiveness of treatments, practices, and programs."[17] This moral imperative also applies to the federal government, which spends hundreds of billions of dollars on social programs every year. Yet too few social programs funded by the federal government have their effectiveness assessed by experimental evaluations.

Addressing Threats to Internal Validity

The remaining task regarding the merits of random assignment is to demonstrate that this method is the most capable of handling threats to internal validity. Experimental evaluations do so by distributing internal validity threats randomly of intervention conditions.[18] Intervention group members will have the same average characteristics as

control group members. Random assignment, however, does not prevent alternative factors from influencing outcomes. Random assignment simply ensures that these factors or events are no more likely to happen to intervention group members than to control group members. The only systematic difference between the groups will be the intervention. For example, consider an experimental evaluation of a social program intended to help disadvantaged high school students attend college. Family breakup, such as divorce, may have a causal impact on whether students attend college. Random assignment ensures that family breakup is no more likely to happen to intervention group members than to control group members. Quasi-experimental designs cannot make such guarantees.

Random assignment ensures that confounding variables are unlikely to be correlated with intervention conditions.[19] The random chance of being selected is unrelated to the pre-existing conditions of the pool of individuals being allocated to the intervention or control groups. Consider a coin toss as the process for allocating individuals to the groups. The results of the coin toss are unrelated to the individuals' race, ethnicity, age, income, or anything else.

Therefore, we can expect that the preintervention correlation between intervention assignment and potential confounding factors should not be significantly different from zero.[20] For statistical purposes, this zero correlation is extremely helpful.

Consider a linear regression model of a job-training evaluation:

$$Y_i = \alpha + \beta_X X_i + \beta_T T_i + \varepsilon_i$$

where Y is the income of an individual after random assignment, α is the constant or intercept, β_X is the regression coefficient for observed characteristics, X is a set of observed factors, β_T is the regression coefficient that measures the impact of program participation, T is a dummy variable coded as 0 when the individual is in the control group and 1 when the individual is in the intervention group, ε is an error term reflecting the unobserved factors that also affect Y, and the subscript i ranges from the first individual to the last individual in the study. If β_T is significantly different than zero, then job training had a significant effect on income. That is, if β_T is positive and statistically significant, then participation in the job-training program was associated with increased income. The opposite would be indicated if β_T was negative and statistically significant. If β_T is statistically indistinguishable from zero, then job training had no impact on income.

However, for this model to provide us with valid impact estimates, T must not be correlated with ε. The statistical procedure used in the linear regression model chooses values of β_T, so the correlations between the ε and the T are zero. The statistical model makes this zero correlation assumption whether or not the correlation really was zero in the study.

Random assignment guarantees that the correlation between ε and the T in the study will be zero. However, in quasi-experimental evaluations, many confounding factors are likely to be correlated with assignment to the intervention. The statistical procedure still chooses the same value for β, even though the error term will be correlated with β. This yields an incorrect estimate of the treatment effect, meaning the value of β_T will an incorrect or biased measure of the effect of job training.

However, estimating this equation when assignment to the job-training program is not based on random assignment poses a serious threat to yielding unbiased impact estimates. When members of the intervention group are purposely selected by job-training administrators or they enter into the job-training program through self-selection, selection bias is going to be a problem. When selection is based on unobserved factors, ε will contain factors that are also correlated with T. The evaluator cannot measure and account for the influence of these unobserved factors. Thus, T and ε are correlated, leading to biased estimates of program effect.

Consider an example of a quasi-experimental evaluation of a smoking cessation program. If the intervention group is solely comprised of smokers seeking assistance in quitting their habit and the comparison group consists of smokers unwilling to seek help in quitting their habit, T and ε are very likely to be correlated. Why? The selection effect—the higher motivation to quit—is unlikely to be observed and accurately measured by the evaluator. Controlling for the race, age, and education levels of participants is easier. Controlling for motivation of the individual participants is vastly more difficult. The unobserved selection process will be captured by ε, making it correlated with program participation, T. The effect of selection bias in this case means that the quasi-experimental evaluation will almost certainly overstate the effectiveness of the smoking cessation program.

What about High-Quality Quasi-Experimental Evaluations?

Some will argue that high-quality quasi-experimental designs, such as regression discontinuity designs and propensity score matching, are suitable alternatives to experimental evaluations. However, these techniques are still less reliable for demonstrating causality, compared to rigorous experimental designs.

Regression Discontinuity Designs. In experimental evaluations, the selection procedure is random assignment. In quasi-experimental evaluations, as previously discussed, selection is a nonrandom process. This problem renders most quasi-experimental evaluations susceptible to selection bias. Instead of trying to figure out what variables are related to selection, in regression-discontinuity designs, the evaluator has the selection variable. Many consider regression-discontinuity designs to be the second best evaluation design, behind experimental evaluations, because they are believed to yield the least biased impact estimates of quasi-experimental designs.[21]

Regression-discontinuity designs work by applying a case-by-case allocation rule for parsing subjects into the intervention and comparison groups according to their "scores" on the selection variable. For this method, the selection procedure is some quantitative assignment variable, A, such that one group is made of subjects with scores below some cut point on A and the other group comprises those subjects whose scores on A are above that cut point. The selection variable is formally called the quantitative assessment variable (QAV). It is also called the cutting-point or cut-off variable because it applies a cutting point to some continuum of need, merit, or other selection variable. Using values along the continuum of the selection variable, subjects with scores over a certain point—cutting point—are assigned into one group, and those with scores under the cutting point are assigned to the other group.[22]

While regression-discontinuity designs are considered second only to designs using random assignment, this method has limited applications because of the need for the QAV. Few social programs strictly follow a QAV score for the allocation of program services. In addition to limited applications, regression-discontinuity designs have two noteworthy weaknesses. First, compared to randomized experiments, regression-discontinuity designs require more assumptions on the proper way to specify the regression model.[23] Second, randomized experiments are more powerful in their ability to detect impacts than regression-discontinuity designs.[24] Regression-discontinuity designs require 2.7 times more study participants to have the same statistical power in detecting statistically significant outcomes compared to experimental designs.[25]

Propensity Score Matching. During the 1970s, the National Supported Work (NSW) Demonstration evaluated, through random assignment, voluntary training and assisted work programs targeting long-term participants in Aid to Families with Dependent Children (AFDC) at 12 sites across the nation. In 1986, Robert J. LaLonde compared the experimental evaluation's results to quasi-experimental methods.[26] Specifically, LaLonde used data on the NSW intervention group and constructed comparison groups using data from the Panel Study of Income Dynamics (PSID) and Current Population Survey (CPS) to serve as the counterfactual conditions, instead of the data from the NSW demonstration control group. The comparison groups were carefully constructed from the PSID and CPS to be as similar in earnings histories as possible to the NSW intervention group. According to LaLonde, the results of quasi-experiment "often differ significantly from experimental results."[27] Further, "this evidence suggests that policymakers should be aware that the available nonexperimental evaluations of employment and training programs may contain large and unknown biases resulting from specification errors."[28]

The sophistication of quasi-experimental methods has substantially grown since LaLonde's 1986 study. Using propensity score matching, Rejeev H. Dehejia and Sadek Wahba produced results that were close to the results of the NSW Demonstration.[29] Propensity score matching carefully matches intervention groups to nonexperimental comparison groups on their likelihood of participating in an intervention based on preintervention characteristics. The matching process yields a single propensity score for each member of the intervention and comparison groups. In theory, this propensity score summarizes the preintervention characteristics and, thus, can be used to control for the preintervention differences between the experimental intervention group and the nonexperimental comparison group. Their comparison groups were derived from the PSID and CPS. According to Dehejia and Wahba, their method obtained "estimates of the treatment impact that are much closer to the experimental treatment effect than LaLonde's nonexperimental estimates."[30]

However, Jeffrey A. Smith and Petra E. Todd found that that the propensity score matching by Dehejia and Wahba worked well only for a precise subsample of the NSW Demonstration data.[31] For example, Dehejia and Wahba's propensity score modeling excluded almost 40 percent of LaLonde's observations due to the inclusion of an additional variable in their propensity score model.[32] Despite excluding such a large portion of the data, Dehejia and Wahba's estimates were close to the original NSW Demonstration results.

However, Larry L. Orr and his coauthors conclude that these propensity score matching studies "are less encouraging than they might originally seem."[33] A 2005 study by Jeffrey A. Smith and Petra E. Todd found that the results from Dehejia and Wahba's study were extremely sensitive to sample selection and the specification of matching variables used to create the propensity scores.[34] While Dehejia and Wahba were able to produce similar results using a particular subsample, Smith and Todd were unable to produce similar results when they applied the same modeling methods to other reasonable subsamples.[35] Smith and Todd conclude that their "findings make it clear that propensity score matching does not represent a 'magic bullet' that solves the selection problem in every context."[36] Based on the analysis by Smith and Todd, Larry L. Orr and his coauthors concluded that while "it was possible to find a nonexperimental approach that yielded estimates similar to the (known) experimental results, equally plausible approaches—in fact, only slight variations in the nonexperimental methods—yielded results different (sometimes very much so) from the experimental results."[37]

Daniel Friedlander and Philip K. Robins attempted to replicate the results of welfare-to-work experimental evaluations done in the 1980s.[38] While they found that the results using in-state comparison groups produced some improvement compared to the results using out-of-state comparison groups, both techniques were problematic because they yielded inaccuracies.[39] Using propensity score methods, another analysis by Wang-Sheng Lee attempted to replicate the experimental evaluation of an Indiana welfare-to-work program.[40] Even when the comparison group had similar labor market characteristics, the quasi-experimental methods yielded biased impact estimates that were quite large.

In the education policy field, propensity score matching has not been successful at replicating the results of experimental evaluations. Roberto Agodini and Mark Dynarski attempted to use propensity score matching to replicate the results of an experimental evaluation of middle and high school dropout prevention programs.[41] They found "no consistent evidence that propensity-score methods replicate experimental impacts of the dropout prevention programs … In fact, we find that evaluating these programs using propensity-score methods might have led to misleading inferences about the effectiveness of the programs."[42] Another propensity score matching study by Elizabeth Ty Wilde and Robinson Hollister attempted to replicate the experimental evaluation results of the Tennessee's Student Teacher Achievement Ratio Project (Project STAR)—a class size reduction program.[43] Based on their rigorous assessment, "propensity score estimators do not perform very well when judged by standards of how close they are to the 'true' impacts estimated from experimental estimators based on a random assignment design."[44] Further, "We hope that this study raises a flag of caution for decision-makers: Do not rush to adopt a propensity score matching estimator thinking it will be an adequate substitute for one derived from a true experimental design."[45]

Steven Glazerman and his coauthors reviewed 12 studies of nonexperimental statistical techniques, including propensity score matching, used to replicate the results of experimental evaluations of job-training and welfare-to-work programs.[46] While they found that some of the statistical techniques reduced the bias of quasi-experimental methods to some degree, none of the individual techniques reliably replicated the experimental results.[47]

According to Howard L. Bloom and his coauthors, the basic problem is that

[A]ll propensity-score balancing or matching methods have the limitation that they can balance only measured characteristics. If all relevant characteristics are measured and included in the estimated propensity score, then balancing the program and comparison groups with respect to this score eliminates selection bias. But if some important characteristics are not measured—perhaps because they cannot be—selection bias might remain. Thus, the quality of program impact estimates obtained from propensity-score balancing methods depends on how well the comparison group matches the program group before matching and on the nature and quality of the data available to measure (and thus further balance) sample members' characteristics. As for any impact estimation procedure, the result is only as good as the research design that produced it.[48]

Propensity score matching in the subject area of voter mobilization has similarly failed to accurately replicate the results of an experimental evaluation.[49]

As far as I am aware, no one has first conducted a propensity score evaluation of a social program and then confirmed the quasi-experimental results by performing an experimental evaluation. All of these propensity score comparison studies carefully attempted to replicate experimental results with known benchmarks in mind. These studies are an academic exercise in replicating true experimental results with quasi-experimental techniques. No one has done the opposite by demonstrating *ex ante* that propensity score matching results can be replicated using experimental methods. Without the true experimental results as the target, evaluators using propensity score matching have no guide in doing their statistical analysis. As succinctly put by Phoebe H. Cottingham, and Douglas J. Besharov, "The propensity score approach has to rely on modeling using observable baseline data, so one cannot know for sure whether the unobservables are introducing substantial bias into the findings"[50]

In sum, propensity score matching is not a valid substitute for experimental evaluations. Propensity score matching's main failing is that the method is unable to remove the effects of selection bias caused by unobserved variables. No matter the level of statistical sophistication, the method cannot account for unobserved factors like the ability of random assignment.

Standards for Assessing the Effectiveness of Federal Social Programs

To properly and accurately assess the effectiveness of federal social programs, the Commission should recommend that experimental evaluations should be large in scale and based on multiple sites to avoid problems of external validity. Given the multitude of confounding factors that may influence the performance of social programs, the larger the size of the evaluation, the more likely the social program will be assessed under all the conditions that it operates under.

When Congress creates social programs, especially state and local grant programs, the funded activities are implemented in multiple cities or towns. Federal social programs are intended to be spread out across the nation. For this reason, the Commission should

recommend that national, multisite experimental evaluations of these federal programs should be a priority.

While individual social programs funded by the federal government may undergo experimental evaluations, these small-scale, single-site evaluations do not inform policymakers of the general effectiveness of national social programs. Small-scale evaluations assess only the impact on a small fraction of people served by federal social programs. The success of a single program that serves a particular jurisdiction or population does not necessarily mean that the same program will achieve similar success in other jurisdictions or among different populations. In addition to using multiple sites, the sample sizes if these studies should be large. Commenting on the need for large samples when doing experiments, Charles Murray of the American Enterprise Institute correctly observes,

> The main problem is the small size of the samples. Treatment and control groups work best when the numbers are large enough that idiosyncrasies in the randomization process even out. When you're dealing with small samples, even small disparities in the treatment and control groups can have large effects on the results. There are reasons to worry that such disparities existed in both programs.[51]

Simply, small-scale evaluations are poor substitutes for large-scale evaluations. Thus, federal social programs should be evaluated in multiple sites so that social programs can be tested in the various conditions they operate under and the numerous types of populations they serve.

Consider the following analogy: If Congress wanted to know the characteristics of the population served by Head Start, conducting a survey of a single Head Start program operating in Houston, Texas, would not tell us much about the national population served by Head Start. To find out the characteristics of the population served by Head Start, a national representative sample of Head Start programs would need to be used. The same reasoning holds for evaluating effectiveness. If we want to find out the effectiveness of Head Start as a national program, then we cannot rely on examining the effects of a single Head Start center. The obvious scientific approach would be to undertake a multisite evaluation of Head Start that reflects the various conditions that the program operates under nationally.

For this reason, the Head Start Impact Study is an excellent example for how to assess the effectiveness of a federal social program. The Head Start Impact Study (HSIS) began in 2002, and the immediate-term, short-term, and long-term results released in 2005, 2010, and 2012, respectively, are disappointing.[52] Not only did the HSIS have high internal validity due the study's experimental design, but it also had extremely high external validity because Head Start sites were randomly selected. Random selection of sties means that the results tell policymakers how the average Head Start site works. A weaker design that selected highly performing or sites volunteering to participate in the evaluation will be less likely to tell policymakers how the average programs works.

Multisite experimental evaluations that examine the performance of particular programs in numerous and diverse settings can potentially produce results that are more persuasive to policymakers than results from a single locality.[53]

The case of police departments performing mandatory arrests in domestic violence incidents is a poignant example of why caution should be exercised when generalizing findings from a single evaluation. During the 1980s, criminologists Lawrence W. Sherman and Richard A. Berk analyzed the impact of mandatory arrests for domestic violence incidents on future domestic violence incidents in Minneapolis, Minnesota.[54] Compared to less severe police responses, the Minneapolis experiment found that mandatory arrests lead to significantly lower rates of domestic violence. Sherman and Berk urged caution, but police departments across the nation adopted the mandatory arrest policy based on the results of one evaluation conducted in one city.

However, what worked in Minneapolis did not always work in other locations. Experiments conducted by Sherman and others in Omaha, Nebraska; Milwaukee, Wisconsin; Charlotte, North Carolina; Colorado Springs, Colorado; and Dade County, Florida, found mixed results.[55] Experiments in Omaha, Milwaukee, and Charlotte found that mandatory arrests lead to long-term *increases* in domestic violence. Apparently, knowing that they would automatically be arrested prompted repeat offenders to become more abusive. It seems that the following sick logic occurred: If I'm going to automatically spend the night in jail, I might as well beat my wife extra good. In a subsequent analysis of the disparate findings, Sherman postulated that arrested individuals who lacked a stake in conformity within their communities were significantly more likely to engage in domestic violence after arrest, while married and employed arrested individuals were significantly less likely to commit further domestic violence infractions.[56]

Contradictory results from evaluations of similar social programs implemented in different settings are a product not only of implementation fidelity, but also of the enormous complexity of the social context in which these programs are implemented. Jim Manzi, a senior fellow at the Manhattan Institute, uses the conflicting results of experimental evaluations to explain the influence of "causal density" on the social sciences.[57] "Causal density," a term coined by Manzi, is "the number and complexity of potential causes of the outcomes of interest."[58] Manzi postulates that as causal density rises, social scientists will find greater difficulty in identifying all of the factors that cause the outcome of interest.

The confounding influence of causal density likely contributed to contradictory effects of mandatory arrest policies by location. To address causal density, experimental impact evaluations of federal social programs should be conducted using multiple sites. In fact, the total sum of the multiple sites should be a nationally representative of the populations served by the social program being evaluated.

A Rigorous Definition of What Counts as "Evidence-Based"

The term "evidence-based" should mean that experimental evaluations of a program model have found consistent statistically significant effects that meaningfully ameliorate a targeted social problem in at least *three different settings*.[59] Once a program model has been found to produce meaningful results in multiple settings, the likelihood of its successful replication elsewhere should increase greatly.[60]

Can Government Replicate Success? In practice, policymakers frequently assume that when something has been found effective in one setting, the same results will be repeated elsewhere. However, the history of social programs is replete with examples of programs effective in one location that simply failed to work elsewhere.

The federal government has a poor record of replicating effective social programs.[61] An excellent example of a federal attempt to replicate an effective local program is the Center for Employment Training (CET) replication.[62] Of 13 youth job-training programs evaluated, the JOBSTART demonstration found only one program to have a positive impact on earnings: the CET in San Jose, California.[63] Based on the results for the CET, the U.S. Department of Labor replicated and evaluated the impact of CET in 12 other sites using random assignment.[64] The CET model had little to no effect on short-term and long-term employment and earnings outcomes at these other locations. According to the evaluation's authors, "[E]ven in sites that best implemented the model, CET had no overall employment and earnings effects for youth in the program, even though it increased participants' hours of training and receipt of credentials."[65]

Another example is the Head Start CARES Demonstration. In search of evidence that Head Start can be an effective program, the U.S. Department of Health and Human Services (HHS) initiated the Head Start CARES demonstration project. The demonstration project tested three "evidence-based" social-emotional interventions to determine whether these interventions help disadvantaged children to develop appropriate social-emotional behaviors. The answer was no. Experimental evaluations released in 2014 and 2015 by HHS found that enhanced Head Start CARES demonstration programs had little to no effect, compared with regular Head Start services, on the social-emotional and academic skills of participating children.[66]

A more recent example is the Obama Administration's funding of Teen Pregnancy Prevention (TPP) grants. The Department of Health and Human Services (HHS) "invests in the implementation of evidence-based TPP programs, and provides funding to develop and evaluate new and innovative approaches to prevent teen pregnancy."[67] In June 2016, Ron Haskins, a research fellow at the Brookings Institution and co-chair of the Evidence-Based Policymaking Commission, testified before Congress that HHS requires "high-quality evidence showing that the programs produced significant impacts on important measures of teen sexual activity or teen pregnancy for the TPP program."[68]

According to HHS, Tier 1 grants are awarded to grantees replicating programs that "have been shown, in at least one program evaluation, to have a positive impact on preventing teen pregnancies, sexually transmitted infections, or sexual risk behaviors."[69] The belief is that these grants will be effective because they are replicating programs labeled "evidence-based." Is this assumption correct?

Each of the Tier 1 grantees is supposed to evaluate the impact of the evidence-based model they are replicating. So far from 2015 to 2016, 21 experimental evaluations of nine "evidence-based" models have been published by HHS or in the *American Journal of Public Health*.[70] Overwhelmingly, these evaluations demonstrated that replicating "evidence-based"

models failed to affect outcomes assessing program effects on the sexual behaviors of participants. Clearly, replicating an evidenced-based program model does not guarantee similar results.

The reason for this failure may because of the inconsistent evidence used to label the program models as evidence-based. For example, HHS used contradictory evidence of the effectiveness of Becoming A Responsible Teen (BART) program to label this model as "evidence-based." Of the three randomized experiments that were classified with a "high ranking" for scientific rigor, two of the studies found the model to be ineffective.[71] How can the body of research on BART that leans strongly toward the program being ineffective be used to promote it as an "evidence-based" model?

Just because an evidence-based program appears to have worked in one location, does not mean that the program can be effectively implemented on a larger scale or in a different location. Proponents of evidence-based policymaking should not automatically assume that pumping taxpayer dollars toward programs attempting to replicate previously successful findings will yield the same results.

The faulty reasoning that drives such failed expansions of social programs is known as the "single-instance fallacy."[72] This fallacy occurs when a person believes that a small-scale social program that works in one instance will yield the same results when replicated elsewhere. Compounding the effects of this fallacy, one often does not truly know why a certain program worked in the first place. In particular, the dedication and entrepreneurial enthusiasm of a program's founder is difficult to quantify or duplicate. HHS's definition that defines a program model as "evidence-based" based on a single evaluation is faulty.

Model Legislation for Multisite Experimental Evaluations
The following model legislation can be used as a starting point for the Commission to make recommendations for how Congress can mandate multisite experimental evaluations of federal social programs. First, when authorizing a new program or reauthorizing an existing program, Congress should specifically mandate multisite experimental evaluation of the program. Second, the experimental evaluations should be large-scale, nationally representative, multisite studies. Third, Congress should specify the types of outcome measures to be used to assess effectiveness. Fourth, Congress should institute procedures that encourage government agencies to carry out congressionally mandated evaluations, despite any entrenched biases against experimental evaluations. Fifth, Congress should require that congressionally mandated evaluations be submitted to the relevant congressional committees in a timely manner after completion.

SEC. <u>Insert number</u>. EVALUATIONS.
(a) PROGRAMS AND ACTIVITIES CARRIED OUT UNDER THIS TITLE.—For the purpose of improving the management and effectiveness of programs and activities carried out under this title, the Secretary shall provide for the continuing impact evaluation of the programs and activities, including those programs and activities carried out under section <u>Insert number</u>. Such impact evaluations shall address—
(1) Outcomes measures of the effectiveness of such programs and activities in relation to their cost, including the extent to which the programs and

activities—

        (A) Improve the <u>Insert outcome measures</u> of participants in comparison to comparably situated individuals who did not participate in such programs and activities;

        (B) Increase the <u>Insert outcome measures</u> over the level that would have existed in the absence of such programs and activities; and

        (C) Increase the <u>Insert outcome measures</u> of participants in comparison to comparably situated individuals who did not participate in such programs and activities;

        (2) The effectiveness of the performance measures relating to such programs and activities;

        (3) The effectiveness of the structure and mechanisms for delivery of services through such programs and activities;

        (4) The impact of such programs and activities on the community and participants involved;

        (5) The impact of such programs and activities on related programs and activities;

        (6) The extent to which such programs and activities meet the needs of various demographic groups; and

        (7) Such other factors as may be appropriate.

    (b) OTHER PROGRAMS AND ACTIVITIES.—The Secretary may conduct impact evaluations of other federally funded programs related to <u>Insert policy area (e.g., employment, early childhood education)</u> and activities under other provisions of law.

    (c) TECHNIQUES.—Impact evaluations conducted under this section shall use appropriate methodology and research designs, including the use of intervention and control groups chosen by scientific random assignment methodologies. In addition, scientific random assignment methodologies shall be used to select the program sites that will undergo the evaluation. For each impact evaluation, the Secretary shall fulfill all the notification and reporting requirements under subsections (e), (f), and (g). The Secretary shall conduct as least 1 multisite control group evaluation under this section by the end of fiscal year <u>Insert year</u>.

    (d) MANDATORY PARTICPATION.—None of the funds authorized or appropriated by Federal law, and none of the funds in any trust fund to which funds are authorized or appropriated by Federal law, shall be allocated to sites that refuse to take part in the multi-site evaluation after chosen by scientific random assignment methodologies for participation in the evaluation.

    (e) NOTIFICATION OF IMPACT EVALUATION PROGRESS.—

        (1) REPORTS TO CONGRESS.—Not later than 1 year after the date of the enactment of the <u>Insert name of Act</u>, and annually thereafter, the Secretary shall transmit to the <u>Insert two or more House committees</u> of the House of Representatives and the <u>Insert two or more Senate committees</u> of the Senate a report on the progress the Secretary is making in evaluating the programs and activities carried out under this section.

        (2) AVAILABILITY TO GENERAL PUBLIC.—Not later than 1 year after the date of the enactment of the <u>Insert name of Act</u>, and annually thereafter not later than 30 days after the transmission of an annual report under paragraph

(1), the Secretary shall make available the reports to the general public on the Internet website of the Department of <u>Insert name</u>.

(f) REPORTS.—The entity carrying out an impact evaluation described in subsection (a) or (b) shall prepare and submit to the Secretary a draft report and a final report containing the results of the evaluation.

(g) REPORTS TO CONGRESS.—Not later than 30 days after the completion of such a report described in subsection (e), the Secretary shall transmit the draft report to the <u>Insert House committees from subsection (e)</u> of the House of Representatives and the <u>Insert House committees from subsection (e)</u> of the Senate. Not later than 30 days after the completion of such a final report, the Secretary shall transmit the final report to such committees of the Congress. All reports must be made available to the general public on the Department's internet web site within 30 days of being transmitted to such committees of Congress.

(h) DEFINITIONS.—In this section:

 (1) IMPACT EVALUATION—The term "impact evaluation" means an evaluative study that evaluates, in accordance with subsection (a), the outcomes of programs and activities carried out under this title, including the impact on social conditions such programs and activities are intended to improve.

 (2) SCIENTIFIC RANDOM ASSIGNMENT METHODOLOGIES—The term "scientific random assignment methodologies" means research designs conducted in program settings in which intervention and control groups are—

  (A) formed by random assignment; and

  (B) compared on the basis of outcome measures for the purpose of determining the impact of programs and activities carried out under this title participants.

 (3) CONTROL GROUP.—The term "control group" means a group of individuals—

  (A) who did not participate in the programs and activities carried out under this title; and

  (B) whose outcome measures are compared to the outcome measures of individuals in an intervention group.

 (4) INTERVENTION GROUP—The term "intervention group" means a group of individuals—

  (A) who participated in the programs and activities carried out under this title; and

  (B) whose outcome measures are compared to the outcome measures of individuals in a control group.

Conclusion

The best way to improve the performance of federal social programs is to find out whether they are, in fact, effective. First, the Commission should recommend that evaluations of federal social programs need to be experimental, meaning the use random assignment to allocate membership in

intervention and control groups. Second, these evaluations should be large-scale experiments that assess effectiveness in multiple locations throughout the nation. Last, the commission should recommend that program models labeled as "evidence-based" be based upon experimental evaluations that have found consistent statistically significant effects that meaningfully ameliorate a targeted social problem in at least *three different settings*. The adoption of these recommendations will greatly assist the federal government promote the development and use of rigorous evidence of program effectiveness.

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PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0127
Comment on FR Doc # 2016-22002

Submitter Information

Name: Judy Freudenthal
Address:
 Nashville, TN, 37203
Email: jfreudenthal@oasiscenter.org

General Comment

See attached file(s)
TO: Commission on Evidence-Based Policymaking
Comments Docket ID: USBC-2016-0003
Federal Register Number: 2016-22002

FROM: Oasis Center
1704 Charlotte Ave, Suite 200
Nashville, TN 37203 November 14, 2016

Dear Chair Katharine G. Abraham, Co-Chair Ron Haskins, and members of the
Commission:

Oasis Center welcomes the opportunity to provide comments to the Commission on
Evidence-Based Policymaking (CEP). We offer input for questions 16 and 18 based on
our experience as a grantee of the Administration for Children and Families, Personal
Responsibility Education Program (PREP) supporting implementation of a high quality,

evidenced based program. PREP has been recognized as a pioneering example of tiered evidence-based policymaking, and represents an important contribution to building a body of evidence of what works. This includes high quality implementation, evaluation, innovation, and learning from results.

At Oasis Center we work to create a community where all young people are safe, valued, connected with caring adults, and prepared for productive and fulfilling lives. Therefore, our work involves providing emotional and physical supports now, as well as leading social change that will improve the odds for greater success for more youth in the future. Key goals include: to institutionalize positive youth development practices to improve the quality of care for foster youth in residential care in TN; develop and implement a citywide plan to ensure youth have safe, stable housing solutions; and to replace systemic exclusionary practices in Metro schools with restorative interventions that promote equity and success for all students.

As a PREP sub-grantee we incorporated evidence into all aspects of our project. The program model we implemented, Wyman's Teen Outreach Program (TOP), was chosen from a list of those that had already been rigorously evaluated and demonstrated to change behavior. We also used evidence to guide and improve our project throughout the grant period.

1. Weekly review of fidelity data helps us understand the strengths and challenges of each of our 23 implementation sites and guides our provision of additional training, coaching, and technical assistance to the organizations implementing TOP. Measuring the rate at which youth at each site achieve the prescribed program dosage over time also helps us understand our sites' performance. Feeding both these kinds of data back to leadership at implementing organizations helps guide their understanding of their performance and identify needs for improvement.

2. Data from Wyman Pre- and Post-Surveys appears to show positive trends in reducing teen pregnancy and reducing problematic or risky behavior among foster youth. With regard to teen pregnancy, youth who have completed both Pre- and Post- Surveys report a decline in the rate at which they have become or caused a pregnancy since entering TOP or intend to do so within 4 months of exiting TOP. Similarly, youth who have completed both Pre- and Post-Surveys report a decline in school suspensions, failing courses, getting any failing grades, and cutting classes without permission while participating in TOP and project a decline in these areas in the next school year.

3. From youth responses on the Wyman Post-Surveys, it is obvious youth feel very positive about their experiences in TOP. This data set supports anecdotal reports from staff and foster youth about the value of TOP. TOP Facilitators have successfully created positive, caring environments for the youth and appear to be implementing TOP according to a positive youth development perspective, as intended. Youth seem to be learning valuable life skills from their participation in TOP. These positive results have motivated the State of TN to add state-run juvenile justice facilities to the list of TOP implementation sites in TN.

In closing, we consider PREP to be a prime example of high-quality evidence-based policymaking. It is our understanding that PREP is one of the few government programs that use evidence and evaluation criteria throughout the grant life cycle. Thank you for considering our input for the CEP. If you have any questions or need additional information, please contact me at 615/327-4455 or jfreudenthal@oasiscenter.org.

Sincerely,

Judy Freudenthal, Ed.D
Vice-President of Youth Engagement, Action & Program Evaluation
Oasis Center

Attachments

Evid-Based Commission_Oasis Ctr 11 2016

TO: Commission on Evidence-Based Policymaking
             Comments Docket ID: USBC-2016-0003
             Federal Register Number: 2016-22002

FROM: Oasis Center
             1704 Charlotte Ave, Suite 200
             Nashville, TN 37203   November 14, 2016

Dear Chair Katharine G. Abraham, Co-Chair Ron Haskins, and members of the Commission:

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Policymaking (CEP). We offer input for questions 16 and 18 based on our experience as a grantee of the
Administration for Children and Families, Personal Responsibility Education Program (PREP) supporting
implementation of a high quality, evidenced based program. PREP has been recognized as a pioneering
example of tiered evidence-based policymaking, and represents an important contribution to building a
body of evidence of what works. This includes high quality implementation, evaluation, innovation, and
learning from results.

At Oasis Center we work to create a community where all young people are safe, valued, connected
with caring adults, and prepared for productive and fulfilling lives. Therefore, our work involves
providing emotional and physical supports now, as well as leading social change that will improve the
odds for greater success for more youth in the future. Key goals include: to institutionalize positive
youth development practices to improve the quality of care for foster youth in residential care in TN;
develop and implement a citywide plan to ensure youth have safe, stable housing solutions; and to
replace systemic exclusionary practices in Metro schools with restorative interventions that promote
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    23 implementation sites and guides our provision of additional training, coaching, and technical
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Sincerely,

Judy Freudenthal, Ed.D
Vice-President of Youth Engagement, Action & Program Evaluation
Oasis Center

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0128
Comment on FR Doc # 2016-22002

Submitter Information

Name: Inspector General Tighe ED-OIG

General Comment

See attached letter, which references a January 2013 Forum on Data Analytics for Oversight and Law Enforcement and a related GAO report, GAO-13-680SP.

Attachments

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UNITED STATES DEPARTMENT OF EDUCATION
OFFICE OF INSPECTOR GENERAL

THE INSPECTOR GENERAL

November 14, 2016

Nick Hart
Policy and Research Director
Commission on Evidence-Based Policy Making

Ref: USBC-2016-0003-0001

Dear Mr. Hart:

This is in response to your Federal Register Notice seeking initial feedback on a series of questions that will contribute to the Commission on Evidence-Based Policy Making's (Commission) future activities. The gathered information will inform the Commission on how to increase the availability and use of government data in support of evidence-based activities related to government programs and policies, while protecting the privacy and confidentiality of such data.

I wanted to make the Commission aware of a Forum on Data Analytics for Oversight and Law Enforcement convened in January 2013 by the Government Accountability Office, the Council of the Inspectors General on Integrity and Efficiency, and the Recovery Accountability and Transparency Board. As is set forth in the report issued about the forum in July 2013, GAO-13-680SP, the participants identified a range of challenges and opportunities associated with data analytics, including challenges and opportunities related to accessing, using, and sharing available data. Many of the issues identified and discussed in the report may be of interest to the Commission.

Please let me know if you have any questions. I can be reached on 202-245-6914.

Sincerely,

Kathleen S. Tighe
Inspector General

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0129
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

See attached file(s)

Attachments

Federal Register - commisison on evidence-based policymaking -CP Edits

Docket ID: 160907825-6825-01

Commission on Evidenced-Based Policymaking Comments

Thank you for the opportunity to respond to this Federal Register Notice. For your consideration, please see the response to your questions below:

Overarching Questions

1. Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/ or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

> In relatively recent years there have been a number of experiments to explore the methods and governance for the use of administrative data for policy analysis. Administrative Data Research and Evaluation (ADARE) is an early research university partnership model. More recently the Statewide Longitudinal Data System (SLDS) and Workforce Data Quality Initiative (WDQI) grants have encouraged state agency partnership models. Also, the NASWA LMI committee could provide examples of cross state partnerships as well. These should all be reviewed for ideas and best practices.

> The BLS/State cooperative programs is a long established and interesting model for blending state and federal goals. It is a data management model that allows state applications of data and input into policy.

> The U.S. Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) program serves as model for cross state data integration and MOUs, with the caveat that it is very limited in access for state research interests.

> The most critical issue is providing a governance structure that addresses the interests, needs and concerns of the data providers/owners and setting policy and boundaries in respect to data access and uses. Data flow, utility and application should not be one way.

2. Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?

> There are well established IT practices for protecting data. However, I believe the most critical aspects relate to governance. A few basic principles are:

> - Data should be cross linked and anonymized before researcher access.
> - No linking of researcher survey data that may allow for re-identification.
> - An established Internal Review Board for all research.

- All researchers must go through training on human subject research such as offered by CITI.
- Governance approval of research results before publication/release.
- There should be explicit requirements for data suppression before release or publication.
- Research requests must address the objectives and questions the research is to address and be within the priorities established by the governance process.
- The research priorities should represent the interests of the data providers and program partners and possibly some representation of their associations or academics. In short, there must be some boundaries not a free for all.
- Research should not be a right but a privilege. Requests for access must meet requirements or evaluation criteria. Possibly structured competitively and approving only the best of the best.
- Consider creating a synthetic database to meet certain research needs or objectives.
- Establish periodic and independent audit of security and practices of data centers.

Data Infrastructure and Access

3. Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?

> This question hits upon the biggest challenge and largest of tasks but is also the one essential to success. Administrative data is organized for case management and to meet federal or state reporting requirements. As such it seldom can be used in raw form to meet research objectives. Data must be reorganized, transposed and otherwise structured in a linked-longitudinal fashion, reviewed for quality and validity, documented and cast into a metadata file for researchers to reasonably assess research feasibility and options. This must be maintained as administrative programs go through changes in data structure, content and definitions through time.

4. What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation, and analysis purposes?

> Here I think it is important to avoid additional burden and costs on administrative programs as much as possible. Mechanisms need to be setup to pretty much transfer data as it exists in the programs to the clearing house for incorporation into a linked-longitudinal database. Several standard data formats should be acceptable to streamline the process for administrative programs.

5. What challenges currently exist in linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

> Historically administrative programs across levels of government have been developed independently or siloed in structure. The corresponding legal frameworks were not written with data alignment in mind. Furthermore, different administrative entities have developed varying practices and policies relative to their circumstances and experiences. This mishmash of legal

interpretation and varying policy and practice across government is the biggest barrier to overcome. The BLS Federal/State Cooperative programs is one example where consistent practices have been established for a number of related data series. Although not specific to this issue, it does offer a model of state/federal partnership in the management of data. The other prime example would be the Census LEHD program.

6. Should a single or multiple clearinghouse(s) for administrative and survey data be established to improve evidence-based policymaking? What benefits or limitations are likely to be encountered in either approach?

> I generally frown on disseminating this role or a federated system because I see that as duplication of effort, legal and administrative costs and risks. It's also more likely to blur authority and accountability. Given the breadth of the effort, I would recommend a middle approach where a single linked-longitudinal archiving center exists within each state and they in turn have a cooperative relationship with a federal center.

7. What data should be included in a potential U.S. government data clearinghouse(s)? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

> I think this should be addressed by some kind of assessment and consensus on what are the most pressing research priorities of the states and federal government. In short begin with a manageable objective, demonstrate success and expand the players based on experience. My take would be to focus on programs that are geared toward workforce outcomes.

8. What factors or strategies should the Commission consider for how a clearinghouse(s) could be self-funded? What successful examples exist for self-financing related to similar purposes?

> Given a focus on policy analysis (which I take this to be) there ought to be some level of government commitment, including financial support. Government and their citizenship should be the main beneficiaries. Additionally, the government's role and responsibility for administrative data ought to be maintained through some level of direct funding. Beyond this, I see no problem with charging for access and pursuing relationships with grant funders.

9. What specific administrative or legal barriers currently exist for accessing survey and administrative data?

> See question 5. The mishmash of legal interpretation and varying policy and practice across government is the biggest barrier to overcome. With programs and their legal foundations developed independently and policy and practice variations across programs and states, there is little consensus.

10. How should the Commission define ''qualified researchers and institutions?'' To what extent should administrative and survey data held by government agencies be made available to ''qualified researchers and institutions?''

Repeating from question 2: A few basic principles are:

- Data should be cross linked and anonymized before researcher access.
- No linking of researcher survey data that may allow for re-identification.
- An established Internal Review Board for all research.
- All researchers must go through training on human subject research such as offered by CITI.
- Governance approval of research results before publication/release.
- There should be explicit requirements for data suppression before release or publication.
- Research requests must address the objectives and questions the research is to address and be within the priorities established by the governance process.
- The research priorities should represent the interests of the data providers and program partners and possibly some representation of their associations or academics. In short, there must be some boundaries not a free for all.
- Research should not be a right but a privilege. Requests for access must meet requirements or evaluation criteria. Possibly structured competitively and approving only the best of the best.
- Consider creating a synthetic database to meet certain research needs or objectives.
- Establish periodic and independent audit of security and practices of data centers.

11. How might integration of administrative and survey data in a clearinghouse affect the risk of unintentional or unauthorized access or release of personally-identifiable information, confidential business information, or other identifiable records? How can identifiable information be best protected to ensure the privacy and confidentiality of individual or business data in a clearinghouse?

The present reality is that there is immense pressure from all corners for access to administrative data to engage in evidenced based research and policy analysis. Currently we see more and more examples of programs and administrative entities feeling obligated to comply with such requests. The problem is that the bulk of these are ad hoc and one-up events with little standardization of approach or consistent practices. In particular, across entities and governments we lack consistent standards, overall governance and monitoring systems. Establishing an overall governance process, data management and access standards and monitoring systems along with best IT practices and elements discussed in question 2, through the clearing house concept, increases security and accountability.

12. If a clearinghouse were created, what types of restrictions should be placed on the uses of data in the clearinghouse by ''qualified researchers and institutions?''

See question 2.

13. What technological solutions from government or the private sector are relevant for facilitating data sharing and management?

> There are many well established IT platforms and security practices. Asking this question implies to me that in the visionary quest for "big data" it is assumed that it is an IT problem with a simple IT solution. It is not. The primary issue is partnership alignment, legal procedures, governance structure, data management, linked-longitudinal archiving, data quality and validation processes, and metadata construction. These are organizational and management tasks.

14. What incentives may best facilitate interagency sharing of information to improve programmatic effectiveness and enhance data accuracy and comprehensiveness?

> A few suggestion:
> - A streamlined system that has minimal impact and cost to the administrative programs providing the data.
> - An overall governance structure and management processes that agencies can buy into.
> - Assure that administrative agencies have a say in research priority setting and a benefit from participating. It should not be a one way street to just serve external entities or researcher needs.
> - Generally administrative entities are only funded to maintain case management systems and grantor reporting requirements. They need support in expanding business analyst functions to benefit from participating in evidence based policy making.

Data Use in Program Design, Management, Research, Evaluation and Analysis

15. What barriers currently exist for using survey and administrative data to support program management and/or evaluation activities?

> See questions 3, 4 and 5.

16. How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?

> In general, what's measured gets better is a sound operating principle. I think the best way to answer this question is to engage administrative entities as full partners, providing input into their research priorities. In principle, this effort should ultimately service the agencies providing the data and their customers. There is a government obligation and public interest to be served.

17. To what extent can or should program and policy evaluation be addressed in program designs?

> All programs ought to, and I think generally do, try to evaluate their programs and how to improve. This effort merely provides additional insight and tools to do so. Additionally, it is

becoming very common practice for private, non-profit and public funders to require an evaluating component within their grants.

18. How can or should program evaluation be incorporated into program designs? What specific examples demonstrate where evaluation has been successfully incorporated in program designs?

I do not see this as anything new and generally see such an objective as a historical trend though a challenging one. We are just at a point where we can, if we choose, more readily apply data to the task, offer new tools for evaluation and be more transparent for informed choice by those we serve.

19. To what extent should evaluations specifically with either experimental (sometimes referred to as ''randomized control trials'') or quasi-experimental designs be institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?

Experimental designs are preferable where possible. However, they are more challenging with human subject research, particularly when applied to public services. There is risk of being challenged for disparate treatment. Quasi-experimental design are probably the norm moving forward. The SLDS and WDQI grants should be reviewed for examples.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0130
Comment on FR Doc # 2016-22002

Submitter Information

Name: Jose Luis Santos
Address:
   Washington, DC, 20005
Email: tjones@edturst.org

General Comment

Attached, please find comments from the Education Trust

Attachments

Written Statement for the Commission on Evidence Based Policymaking

The Education Trust

Closing the gaps in opportunity and
achievement, pre-k through college.

Chairperson Katharine Abraham, University of Maryland
Co-Chair Ron Haskins, Brookings Institution
Commission on Evidence-Based Policymaking

Docket ID USBC-2016-0003

Dear Chairperson Abraham, Co-Chair Haskins, and Commissioners:

On behalf of The Education Trust — an organization dedicated to closing long-standing gaps in
opportunity and achievement separating low-income students and students of color from their
peers — thank you for the opportunity to provide comments in response to the Commission on
Evidence-Based Policymaking's request for comments.

The information below addresses question one in the request for comments in the Federal
Register: "Are there successful frameworks, policies, practices, and methods to overcome
challenges related to evidence-building from state, local, and/or international governments the
Commission should consider when developing findings and recommendations regarding Federal
evidence-based policymaking? If so, please describe."

Since the original Higher Education Act (HEA) was passed in 1965, the United States has made
substantial progress in college access. College-going rates have climbed for students from all
economic and racial groups. Yet, despite this progress, low-income students today enroll in
postsecondary education at rates lower than high-income students did in the mid-1970s. In every
category of postsecondary education, low-income students and students of color are less likely
than others to earn the degrees that they want and need, and far more likely to end up with debt
and no degree.

Past experience is clear: Tackling big problems in education requires good information. For
example, before disaggregation of data was required in K-12, we knew anecdotally that schools
were not educating all groups of students well. But we did not know just how significant the
inequities were, and we didn't know which schools were making progress and which weren't.

That, unfortunately, is where we still are in higher education — especially in regard to low-
income students. We have some limited research on, for example, overall Pell graduation rates,
but we don't know which institutions are serving these students well and which aren't: Pell data
aren't included in annual Integrated Postsecondary Education Data System (IPEDS) data
collections. IPEDS also doesn't include data on part-time students or students who don't start in
the fall or students who transfer in from another college.

Yet if we have learned anything from past experience, it is this: **Students who aren't measured don't count**. If we want these students to count, we must make the same shift we have made in K-12 to demanding better data.

The availability of high-quality, robust data systems is essential to helping the public understand how students are faring at particular institutions, identifying gaps by income and race, and better identifying and incentivizing improvement and success. Having better information on the college participation and outcomes of all students also helps ensure that the billions of dollars that the federal government annually invests in higher education is being used in the most effective ways.

There are a range of ways to do this — from an expanded IPEDS collection to a fuller unit record system. Both are viable. What is important is not how the data are collected, but that they be collected and publicly reported. Therefore, we propose two options to ensure we are counting all students, rather than just some.

Option One

The first and most comprehensive approach is to **lift the student unit record ban,** implementing a stripped down version of the data system that most states have already put into place. While a federal version of such a system doesn't have to have all of the information collected in state-level systems, such an approach would allow for the basic tracking functions necessary to monitor student progress from one institution to the next, and also link to employment and wage data.

This approach is the least burdensome for colleges and universities, relieving them of many of the reporting requirements in the current HEA. And it will produce the most comprehensive data for policymakers and students, as well as inform institutional improvement. The ban on a federal student unit record system makes it impossible for federal policymakers to get a comprehensive picture of how students are moving through postsecondary education and attaining degrees and certificates.

The commission should recommend the overturn of the HEA ban and the ban on a federal database of Workforce Innovation and Opportunity Act (WIOA) data, so that we can have a nationwide, inclusive data set to show how people are moving through a variety of education pathways.

Creating a student unit record system can begin by leveraging existing resources from the U.S. Department of Education (which houses the National Student Loan Data System (NSLDS) and IPEDS), the Social Security Administration (SSA), the Department of Defense (DoD), and the Department of Veterans Affairs (VA), among others, to create a more complete picture of the higher education landscape. These sources provide valuable data on important groups of students

who are often overlooked, including Pell Grant recipients, student loan borrowers, and student veterans. If linked, these data would produce valuable information about enrollment and completion rates, and post-college employment and earnings.

<u>Option Two</u>

At the same time, because we are not naïve about the concerns that exist around a unit record system, we also actively support other possibilities for improving data. A second option is to expand and improve the current data collections through IPEDS, including by adding data on part-time students and transfers, and by making Pell status transparent in the collections.

This approach creates additional burdens for institutions, but our own experience with a voluntary data collection effort among the 25 public university systems that participated in our Access to Success Initiative suggests that the additional burden is not insurmountable, especially given how much more useful the resulting data are.

The data collections for two-year colleges should also be revised to disaggregate outcomes that are now combined. Transfers from one community college to another, for example, are currently treated no differently than transfers from a community college to a university.

We support efforts to improve IPEDS, including supporting the Department of Education's decisions to create Pell subgroup cohorts within the Outcome Measures. These and other improvements to IPEDS can greatly improve the quality of the data and provide invaluable information about the success of the nation's most vulnerable students.

We are hopeful that the activities of the Commission will help us take an important and critical step toward advancing the quality and availability of higher education data — specifically, a step that ensures better data that can be used to empower students, families, the public, advocates, and campuses as we aim to increase postsecondary success for all students, especially our most vulnerable.

Cordially,

José Luis Santos

Vice President of Higher Education Policy and Practice

PUBLIC SUBMISSION

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

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Comment on FR Doc # 2016-22002

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General Comment

See attached file(s)

Attachments

Commission for Evidence Based Policymaking Comments_20161114

Commission for Evidence-Based Policymaking: Comments

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The comments and opinions below are mine alone and do not represent those of either the Urban Institute or the W.E. Upjohn Institute for Employment Research. They are based on my years directing unemployment insurance and employment and training research at the U.S. Department of Labor (USDOL) and my experience as an economic consultant since 2010. My comments deal largely with the Overarching Questions 1 and 2.

Comments

My comments cover the following areas: 1) scope of evidenced-based policymaking, 2) improving state data and research systems, 3) interstate data, and 4) regional and national data repositories.

Scope of Evidenced-Based Policymaking

Rigorous demonstration projects or evaluations of existing programs are critical at the beginning of the process of evidence-based policymaking. But rigorous evaluations are not enough. Such evaluations may or may not result in policy changes that use the lessons learned from the evaluation. Even if the lessons learned from evaluations are implemented, the process of implementing new and more rigorous evidenced-based processes should be continual if success is to be accomplished over the long run.

Evidence-based policymaking should be thought of as a continuous process. In fact, it is a process that should never end. In my book, *Solving the Reemployment Puzzle: From Research to Policy* (2010), I illustrate this process of re-evaluation for two legislative initiatives – Worker Profiling and Reemployment Services (WPRS) and Self-Employment Assistance (SEA) – in chapters 2, 3, 4 and 8.

In each case the adoption and operation of a proven approach had multiple steps. There was progression:
- from demonstration design and implementation

- to demonstration evaluation
- to policy development
- to legislative development and enactment
- to program implementation with fidelity to the demonstration design
- to program evaluation.

In both cases, the design, implementation, and evaluations were rigorous, using random control trial (RCT) methods. But equally important was the fidelity of transferring the tested design to policy development, legislative enactment, and program implementation. Finally, an evaluation examined how the operational program results compared to the design and outcomes obtained in the experiment.

Even after implementing a successful model and evaluating it, the process does not end. Keeping fidelity of the tested and evaluated model takes work by state and local practitioners as well as oversight by the federal government. In the case of WPRS, successful implementation depended on updating a Worker Profiling regression model that was developed by each state during the implementation period. Many states, however, failed to update their models, and the U.S. Department of Labor eliminated the staff technical assistance to states to update their models.

Successful implementation also depended on the commitment of USDOL staff who developed careful plans regarding how to operationalize the program across three USDOL components: Unemployment Insurance, the Employment Service, and the Workforce Investment Act programs.

Finally, successful implementation depended on Congress appropriating sufficient funds to implement a comprehensive program of job search assistance (reemployment services). Unfortunately, resources to provide reemployment services were limited, and substantial federal funding was only briefly available through the American Recovery and Reinvestment Act of 2009.

Improving State Data and Research Systems

Federal Funding of State Longitudinal Data Systems

The USDOL Workforce Data Quality Initiative (WDQI) and Department of Education's State Longitudinal Data System (SLDS) funding have been very helpful in creating and improving state longitudinal data system. However, some of the money has been wasted on states that have not been able to build and use such systems. Especially on the workforce side, funding these systems should be continued, but funding should be targeted to states with the technical capacity and political will to use them, as well as to those states that have already successfully built, maintained and utilized the data.

Most states that have built effective systems have done so working with major state research universities. Building useful data systems will likely be achieved by states with state research universities. However, many states don't have such universities or the staff that is willing and able to support such research efforts. As a result, I recommend that the federal government competitively fund regional Workforce Data Research Centers that can serve multiple states. These regional centers are likely to be located in states that already have major state research universities. (See my recommendation below about regional repositories.)

State Models[1]

Administrative Data Research and Evaluation (ADARE)

A number of states established longitudinal data systems on their own. They started these systems in a number of different ways, but all these systems depend on having state workforce agencies and researchers getting together to make use of the data for performance measurement, research and evaluation purposes. The efforts that each of the ADARE states made to successfully develop their longitudinal administrative data systems is documented in Stevens (2004). In the 1990s, the USDOL began funding studies in nine states (California, Florida, Georgia, Illinois, Maryland, Missouri, Ohio, Texas, and Washington) of interest to both USDOL and the states. The federal ADARE effort was an attempt to take advantage of state data and research capacity and to harness it for research and evaluation efforts of mutual interest. The output of the ADARE effort was a wide variety of studies, including a quasi-experimental evaluation of the Workforce Investment Act. Other studies brought together data from other agencies. One studied Temporary Assistance for Needy Families (TANF) in six states (King and Mueser 2005). The U.S. Department of Agriculture funded a six-state study of the relationship between the Supplemental Nutrition Assistance Program (SNAP) and Unemployment Insurance during the Great Recession, revealing how the SNAP and UI programs have worked separately and interacted. For this study, six ADARE states merged SNAP data with their UI wage record and benefit data (O'Leary et al. forthcoming).

Ohio Longitudinal Data Archive (OLDA)

Ohio used its WDQI funds received in 2010 to develop and establish the Ohio Longitudinal Data Archive (OLDA). This data archive is located at the Center for Human Resource Research at Ohio State University. The data in the archive includes data from four state agencies dealing with: workforce and social services, K-12 education, higher education, and vocational rehabilitation. (Additional Ohio state agencies are expected to join OLDA.) The data archive is subject to the same security and confidentiality provisions that the Center for Human Resource

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[1] USDOL has funded a "State Research Capacity" study because, under the new Workforce Innovation and Opportunity Act of 2014, states are responsible for increased research and evaluation. That study is ongoing. It consists of a survey of all states regarding their research capacity. It also includes two case studies on Ohio and Washington state because of their exemplary research efforts.

Research uses for the National Longitudinal Survey that it operates for the Bureau of Labor Statistics.

Federal funding for OLDA was exhausted in early 2016. The four participating agencies are now each contributing $200,000 to fund the archive that has a total cost of $800,000 per year. For their contribution, each agency has its data cleaned and entered into OLDA, and they can request staff from the Center for Human Resource Research to conduct a moderate level of research and analysis for them at no additional cost. More extensive research must be funded by the participating state agencies.

OLDA is available for use by the participating state agencies, Ohio State University, other Ohio and out-of-state universities, and private researchers. It has been used for 154 projects in the past three years. OLDA encourages use by all bona fide researchers and research institutions. Research has to meet criteria set by OLDA and the Ohio state agencies. Researchers must adhere to strict confidentially provisions and agree to destroy the merged, de-identified data which they receive at the end of their projects.

Two examples of approved university and private research projects by OLDA are as follows: Alex Mas (Princeton), Pauline Leung (Cornell), and Zhuan Pei (Cornell) were approved to conduct a project about education and re-training experienced by unemployed workers and their employment and earnings outcomes ("Further Education During Unemployment"). A second project by Scott Davis (IMPAQ International), Louis Jacobson and myself (consultants to IMPAQ) was approved for a "Scorecard II" project that compares training performance measures using Ohio state data and the National Directory of New Hires (NDNH), with particular emphasis on the difference between the data sets and on the effect of adding interstate employment and earnings outcomes from NDNH. The latter project is funded by USDOL.

Washington Education Research and Data Center (ERDC)

Washington has a different state model for longitudinal administrative data systems and research and evaluation than is used in Ohio. It maintains its own data system and both conducts its own research and contracts for outside research.

Washington state has a long history of developing and using longitudinal administrative data. In the late 1970s, it developed a longitudinal administrative data system using mostly unemployment insurance data, during the time when the U.S. Department of Labor funded a Continuous Wage and Benefit History. They maintained and expanded that system with state funds after USDOL abandoned the federal program. Then they used federal funds from State Longitudinal Data Systems (SLDS) and WDQI to build a greatly enhanced education and workforce system using SLDS and WDQI funds. State agencies and other researchers have wide access to data from the Washington state Education Research and Data Center.

Interstate Wage Data

Federal agencies, state agencies, university researchers and private researchers all need access to nationwide UI wage records, since they are the main source of data for determining employment and earnings outcomes. Employment and earnings are key outcomes for many programs, and yet there is no way of following individuals as they move around the country.

The NDNH is not the answer to providing UI wage records for research and evaluation. It is limited in its scope, most importantly because it contains only two years of UI wage record data. More importantly, the NDNH data is held by a program agency (i.e., the Department of Health and Human Services (HHS)) and is not readily available for research and evaluation purposes. One research project that I have been working on to develop training and education scorecards using state and NDNH data has faltered because of many delays in obtaining approval of data matching requests and then having the data matched by HHS. After two years of effort, the data matching has still not occurred.

National or Regional Repositories

A national repository makes sense for UI wage record data, but not for a much more complex longitudinal administrative data system that includes data from many programs, such as Ohio's OLDA. One way of achieving a national UI wage record repository would be to amend federal UI law to make the exchange and storage of UI wage records a federal responsibility. In 1935, when the UI program was created as part of the Social Security Act, it may have made sense to leave interstate wage record exchange and data use for performance and research purposes to the states. It certainly does not make sense now, given voluntary state participation in the system and lack of support for using the data for research and evaluation purposes. At present, the system is overseen by the state workforce agencies through a committee of the National Association of Workforce Agencies.

The interstate UI wage record system should be made mandatory, transferred to USDOL, and USDOL should be responsible for data exchange for UI benefit claims and performance measurement purposes. USDOL also should establish a national UI wage record repository for research, public policy and program management purposes.

By contrast, longitudinal administrative data systems that include data from multiple state agencies are far more complex, and they cannot be part of a national repository. For these multi-program longitudinal administrative data systems, a series of regional data and research centers should be established. For these systems to be effective, state cooperation is needed, and gaining that cooperation would require that that each state get feedback in the form of research and analysis, making use of their state data by the repository organizations. States should regularly transfer high quality data to a regional center, work with the regional center to ensure that erroneous data is corrected, and have the incentive of access to the data and receipt of analysis of that data that can be used for individual state program improvement and program assessment and evaluation. That process cannot be carried out through a national data center, because a single national repository organization could likely not work effectively

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with 50 states. It would require establishing approximately 6 to 8 regional data and research centers that each can work with 6 to 8 states to improve their data and conduct research and analysis for each state as a quid pro quo for providing their state data.

Since the OLDA, the Ohio data system, costs $800,000 per year, a regional repository for a wide range of state programs could cost as much as $40 million yearly, although there likely would be economies of scale.

Approaches to Evidence-Based Policy: Geographic Alternatives

Evidence-based policy making should be encouraged at the local, state, regional and national levels. Let us look at the workforce system as an example. Local models could be developed by creating a small number of model local workforce offices that could test alternative program and policy options or smaller nudges to improve the workforce system. As we saw above, some states already are doing good work in implementing evidence-based policymaking, such as Ohio and Washington, and these state efforts should be encouraged. Regional efforts could be accomplished by states coming together, either voluntarily on their own or with federal assistance, to create multi-state data centers. Finally, a national system should be developed by the federal government, although practically I believe it would have to be limited to creating a single UI wage record data center and not a complex multi-program data system.

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PUBLIC SUBMISSION

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Request for Comments for the Commission on Evidence-Based Policymaking

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Comment on FR Doc # 2016-22002

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General Comment

The attached document is submitted on behalf of the National Association of State Workforce Agencies (NASWA).

NASWA is a national, nonpartisan organization representing workforce agencies in 50 states, DC and Guam as they administer the publicly-funded state workforce system, including the Workforce Innovation and Opportunity Act (WIOA) programs that fund job training and career services, the Unemployment Insurance program, and labor market and workforce information.

Thank you for this opportunity to provide input on the issues the Commission laid out in FR Doc. 2016-22002.

Attachments

CEBP FINAL

To Members of the Commission on Evidence-Based Policymaking:

On behalf of the National Association of State Workforce Agencies (NASWA), thank you for this opportunity to provide input on the issues the Commission laid out in FR Doc. 2016-22002 that will inform the future deliberations of the Commission.

NASWA is a national, nonpartisan organization representing workforce agencies in 50 states, DC and Guam as they administer the publicly-funded state workforce system, including the Workforce Innovation and Opportunity Act (WIOA) programs that fund job training and career services, the Unemployment Insurance program, and labor market and workforce information.

State workforce agencies have a longstanding interest in and history of using data to operate performance accountability systems, conduct research and evaluations, and otherwise use workforce information to improve workforce development policies, programs and strategies. State workforce programs are among the few federally-funded grant programs with a history of using administrative data sets to implement performance accountability systems, and state workforce agencies have an over-25-year history of involvement in rigorous research and evaluations focused on reemployment services, job search assistance, and training.[i]

The new WIOA law places greater emphasis on integrating state administrative data across a range of workforce, education and human services programs, as well as implementing common performance metrics and research and evaluations for many of the programs. Given the large real-term cuts in funding for workforce development programs and UI administration in recent years (see Appendix A), these are both more formidable yet even more important challenges.

NASWA members and staff are available to share expertise and provide up-to-date information on challenges and proven practices related to evidence-building. Since WIOA passed, NASWA has hosted numerous national and committee meetings, often including our education and human services partners, in order to inform policymakers on WIOA implementation issues and practices. To develop the attached comments, we drew on the insights of NASWA members at these meetings and at a specially-called November teleconference that focused on the Commission's questions. Over 40 members of four NASWA Committees (Employment & Training, Labor Market Information, Unemployment Insurance, and Technology) participated in the November teleconference.

Sincerely,

Scott B. Sanders
Executive Director

COMMENTS FOR THE COMMISSION ON EVIDENCE-BASED POLICYMAKING

COMMISSION QUESTION #1: Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

NASWA members report that resource limitations related to data access, funding, IT, and/or staff capacity impede or have even stalled research and evaluation activities in a large number of state workforce agencies. In fact, in commenting on proposed WIOA regulations, the National Governors Association joined NASWA in suggesting that states will need dedicated funding and federal support to meet the evidence-building requirements of WIOA. There are some states, however, such as Ohio and Washington, that have made great advances in developing an evidence-building infrastructure, and they provide good examples of frameworks, policies, practices and methods. They have not only developed longitudinal administrative data sets, but also the infrastructure to convert and analyze the data to inform policy and customer choices. Appendix B provides information on the Ohio case.

Other examples of successful approaches to developing data infrastructure include the numerous other state longitudinal administrative data sets funded, in part, under the Workforce Data Quality Initiative (WDQI) and State Longitudinal Data Systems (SLDS) grants. A good cross-state effort is the Western Interstate Commission for Higher Education's (WICHE) multi-state longitudinal data exchange (MLDE). This latter effort is important for showcasing the value of tracking individuals across state lines to understand the impact of our education, training and other investments. Many states are engaged in cross-state efforts, including Wyoming, which has agreements with twelve states and has used cross-state data to measure community college outcomes and understand migration of young people.[ii]

NASWA would like to make the Commission aware that, under a recent USDOL WIOA technical assistance grant, NASWA is documenting successful approaches to evidence building among state workforce agencies, as well as the challenges many state workforce agencies are facing. NASWA will share the final report with the Commission when it is released by USDOL (most likely this winter). The USDOL-NASWA project is:

- Capturing information, through a national scan, on the current capacity of state workforce agencies to conduct research and evaluations[iii];
- Developing a reference document of research studies and evaluations conducted over calendar years 2011-2015; and
- Developing two case examples, based on in-depth, structured interviews in Ohio and Washington, which will illuminate factors and practices that have enabled Ohio and Washington to produce a broad range of recent workforce research and evaluation activity.

COMMISSION Question #2: Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?

Some examples of the many factors states have considered are: (1) a formal approval process and development of legal contracts for data users; (2) restricted data use (there must be a specific project plan); (3) role differentiation to ensure duplication is built into the security framework; (4) a timeout feature; (5) two-factor authentication; (6) data aggregation rules to ensure confidentiality; (7) background checks for outside data users; (8) IRB (institutional review board) training and approval for outside users; (9) periodic security and practices audits to ensure outside review; and (10) database development issues (using a synthetic database to meet certain research needs and/or a more federated infrastructure for sharing data).

Challenges have included co-mingling of the data, which requires addressing questions of ownership, liability, and additional security measures. Some states, such as Ohio, have addressed these challenges at the state level, when co-mingling data across multiple state agencies (six agencies, in the case of Ohio). Often, entities should maintain ownership of their data.

COMMISSION QUESTION #3: Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of, and access to, administrative and survey data?

The existing data infrastructure should be modified by:

- Streamlining federal data initiatives, such as SLDS and WDQI, which may mean combining some initiatives that have related goals. Existing federal funding methods for investment in new insight-generating infrastructure such as longitudinal data systems

are unpredictable, uncoordinated, and tend to promote overlapping and uncoordinated projects. If the 21st century is about lifelong learning with people moving back and forth between education and employment, or participating in employment and education simultaneously, we need to develop pre-K to career longitudinal systems, not separate education and workforce program systems.

- Providing more predictable, coordinated and scalable funding support for the development of state longitudinal administrative data systems, and the development of electronic tools that deliver information in customer-helpful formats.

- Supporting government off-the-shelf (GOTS) projects and products after initial investments are exhausted. For GOTS projects to be successful, continued support and sustaining funds are needed.

- Supporting the newly-established, federally-funded WIOA Information Technology Support Center. The Center will be run by NASWA to develop IT solutions and training that support state workforce agencies and the workforce system broadly in implementing the WIOA vision of cross-agency integrated data and technology solutions that support integrated service delivery, case management, performance measurement, and research and evaluation.
- Investing in and continuously improving labor market information so that high-quality data relevant for the current economy is available to guide policymakers and help customers make career, education and training decisions. Episodic, competitive grants cannot provide the solid foundation needed for this key piece of data infrastructure. For example, the last survey regarding the contingent workforce was conducted by the Bureau of Labor Statistics in February 2005 and estimates of the size of this population today vary widely as a result.

- Ensuring state agencies have access to the funding, skilled staff and tools needed to analyze labor market and workforce data and to conduct research and evaluations, so data can be translated efficiently into useful information for policy makers and customers. State workforce agencies should not be wholly or largely dependent on arrangements by which private entities take the data and develop information, tools and products they sell back to government agencies, especially where it is more efficient to produce information in-house and/or to create tools and solutions that can be shared across a number of states.

- Improving state workforce agency access to national UI wage record data that can be used for research and evaluation. Many state workforce agencies do not have the staff capacity and resources necessary to broker and maintain bilateral or multi-state agreements to share UI wage record data for research and evaluation purposes, and developing and maintaining such state-to-state agreements is an extremely inefficient solution. Also, some state workforce programs cannot receive their own state's UI wage record data for research and evaluate purposes, due to legal or other factors (e.g., state laws, risk aversion).

- Providing state UI agencies dedicated funding to support state wage record data exchange and related matters.

- Considering the impact on employers to any changes made in how UI wage records are collected and what elements are included.[iv] Some states have adopted enhancements. This includes understanding the environment within which employers maintain and report employment-related information, and balancing the additional cost against the value of additional employer data to find the least-burdensome solution.

- Supporting a technological solutions repository similar to the recently launched code.gov website where open-source and federally-funded projects can be tracked and shared across state programs.

- Supporting promising state or state-federal pilot projects that increase data access or improve data analysis and research.

COMMISSION QUESTION #4: What data sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation and analysis purposes?

Any Commission recommendations should not place additional burdens on state administrative programs but take data as it is available from the programs. States should not have to modify the data systems of their administrative programs in order to share data for research, evaluation and analysis purposes.

COMMISSION QUESTION #5: What challenges currently exist linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

WIOA requires common performance measures across several workforce development and partner programs. These measures are of sufficient value that applying them and their

reporting concepts more universally would improve service delivery, as well as data sharing and program evaluations. The WIOA measures are now required under the SNAP employment and training program. However, the Food and Nutrition Service is implementing slightly different measure concepts (e.g., definitions of participant and program exit) which makes integration of services, and data comparability and data sharing, more difficult. Further, while TANF is a mandatory WIOA partner program (barring a governor opting out), the new WIOA measures and accountability constructs do not apply to TANF, which again makes integration of services and data comparability and sharing more difficult.

Administrative data is usually organized for case management and to meet federal or state reporting requirements. As such, it seldom can be used in raw form to meet research objectives. Even if common definitions are achieved, additional challenges include reorganizing and transposing administrative data, and otherwise structuring it in a linked longitudinal fashion so it is documented and cast into a metadata file. This file must be separately maintained because administrative programs go through changes in data structure, content and definitions.

Another challenge is that efforts to create state longitudinal administrative data sets are often limited by the application of the Family Educational Rights and Privacy Act (FERPA). Student education records are important to developing a complete pre-K to career longitudinal data. Also, state workforce agencies need access to these student data to meet WIOA performance reporting requirements to track credential attainment, youth outcomes, and "measurable skills gains."

Finally, also creating challenges is government spending on varied and sometimes duplicative IT solutions across federal, state and local workforce, education, and human services agencies.

COMMISSION QUESTION #6: Should a single or multiple clearinghouse(s) for administrative and survey data be established to improve evidence-based policymaking?

In general, state workforce agencies are not supportive of a single Federal clearinghouse, and support a more federated system with communications pathways at the national level to facilitate data sharing.

COMMISSION QUESTION #7: What data should be included in a potential U.S. government data clearinghouse(s)? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

Whether there is one or more than one clearinghouse, state workforce agencies need to be able to access state and national data to operate a performance accountability system and conduct program evaluations and research. At the present time, state workforce agencies are creating and sending data to federal and state partners, but not receiving enough information in return.

Major decisions about data infrastructure, including which data should run through one or more national clearinghouses, should be made in partnership with the state agencies that control such data, so that the needs and interests of both the federal and state governments are taken into account.

In most cases, states should not be coerced to provide data through national or regional clearinghouses by way of conditional grants or other means; rather, the governance structure, technology framework, quality of and ease of access to data, funding environment, and TA environment should provide the necessary incentives for governmental partners to participate. (See also Question #14 below.)

In order to ensure data linkages, laws for sharing and protecting data must be reconciled. There are variances in federal and state laws at the source level (e.g., FERPA, UI wage records) that impede data linkages. Some states have access to certain datasets (NDNH, DMV records), while others do not, and restrictions on data use can vary.

COMMISSION QUESTION #8: What factors or strategies should the Commission consider for how a clearinghouse(s) should be self-funded? What successful examples exist for self-financing related to similar purposes?

The data and human infrastructure needed to build and maintain an evidence base for federal and state programs are public goods. NASWA questions the premise that data clearinghouses should be self-funded, except outside researchers and institutions should cover the marginal costs of their data acquisitions.

Government entities have a role and responsibility to maintain and be good stewards of program administrative data, and should receive adequate funding and support for the integrity of the system.

COMMISSION QUESTION #9: What specific administrative or legal barriers currently exist for accessing survey and administrative data?

Programs have been developed independently and in a siloed fashion, as have the legal requirements around them, so there are numerous legal barriers. Also creating barriers are the many levels of government involved in program administration and the varied policies and practices associated with these programs.

COMMISSION QUESTION #10: How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions?"

States should be considered partners to any clearinghouses, not qualified researchers and institutions. As governmental entities, state workforce agencies should have access to governmental data needed for federally required performance reports and to conduct research and evaluations.

Governmental entities, especially WIOA partner agencies at the federal and state level, should have priority access to data infrastructure.

The Commission could learn from state workforce agencies, such as Ohio's, that provide data, selectively, to outside researchers and institutions. Given resource constraints, such uses could be limited to specific project requests that support the research agendas of federal and state agencies, as a first priority.

QUESTION #11: How might integration of administrative and survey data in a clearinghouse affect the risk of unintentional or unauthorized access or release of personally identifiable information, confidential business information, or other identifiable records? How can identifiable information be best protected to insure the privacy and confidentiality of individual or business data in a clearinghouse?

Facing high demand for government data with constrained resources, many entities are currently approaching privacy and confidentiality in an ad hoc way that involves more risk than having an organized approach with clear processes, safeguards and rules.

QUESTION #13: What technological solutions from government or the private sector are relevant for facilitating data sharing and management?

See the answer to Question #1.

COMMISSION QUESTION #14: What incentives may best facilitate interagency sharing of information to improve programmatic effectiveness and enhance data accuracy and comprehensiveness?

The best incentives to facilitate interagency sharing of information are to:

- Create efficient and streamlined data collection, confidentiality, and data access processes, with excellent privacy safeguards.
- Ensure that state agencies that collect, safeguard, clean, and share data are able to benefit from the data soon after it becomes available.
- Provide state workforce agencies adequate funding, training, and technical assistance as they fulfill their responsibilities for collecting, safeguarding and sharing information.
- Provide state workforce agencies (and their state and federal partners) the critical funding and other support needed to translate data into information that is useful to customers – including policymakers, program managers, job seekers and employers. Otherwise, only the private sector will have the capacity to build an evidence base and develop customer tools and information, which is problematic in cases where it is more efficient to develop in-house and/or cross-state solutions.
- Ensure that evidence is used to inform policy. For example, despite 25 years of evidence by federal and state partners that job search assistance and UI claimant reemployment services are high return-on-investment strategies, funding for the major programs supporting these strategies has declined significantly over the last 20 years (see Appendix A).

COMMISSION QUESTION #15: What barriers currently exist for *using* survey and administrative data to support program management and/or evaluation activities?

To ensure the support of entities or individuals providing data, the business case needs to be made that research and evaluation activities help inform service delivery and the development of effective program strategies. The Commission can help develop the business case.

A large barrier is the inability of many states to hire and retain required expertise in research and evaluation. State workforce agencies have no dedicated funding for this activity. Such expertise is not covered by USDOL's Workforce Information Grant funding. States can use statewide set-aside funds under certain WIOA grants, but these and other major sources of funding for workforce programs have experienced large real-term cuts over the last twenty years (see Appendix A).

Barriers also exist with respect to limitations on the use by states of certain data sources. For example, the IRS allows states to use 1099 data to evaluate possible worker misclassification from an unemployment tax perspective. However, such data cannot be used to evaluate misreported earnings from an unemployment integrity perspective. Given the flexibility that is being asked of states to share items like UI wage records for a broader scope of evaluation (outside of just UI program administration), the same expansion should be asked of federal agencies.

The timeliness of data is also a constraint in using data to inform policy development, program management, and research.

COMMISSION QUESTION #16: How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?

Federal, state, local, and even private sector money available for public services have not kept up with the expanding need. That means that we can keep doing the same things but do them for fewer people, or we can keep serving the same or more people but simply do less for them, or we can analyze our data and learn how to be more effective. Ideally this would not simply mean looking at data to see which services work and which don't. Instead, we should be able to use data to better understand which services work best and for whom. It is likely that most services have some effectiveness but that effectiveness varies by population served and other factors, which calls for a customized, evidenced-based approach.

COMMISSION QUESTION #17: To what extent can or should program and policy evaluation be addressed in program designs?

Government should evaluate program and service effectiveness and use findings to improve effectiveness and efficiency. That obligation is both to taxpayers in general and to those our services are intended to benefit.

COMMISSION QUESTION #18: How can or should program evaluation be incorporated into program designs? What specific examples demonstrate where evaluation has been successfully incorporated in program designs?

Unemployment Insurance program "worker profiling models," if timely and regularly updated, are an example of an approach that aids state evaluation of UI programs. These predictive models incorporate changes in the economy that impact who is likely to exhaust benefits. They enable state workforce agencies to directly engage those claimants most likely to have long unemployment durations in effective reemployment strategies early in their unemployment insurance spells.

The limiting factor in the application of these worker profiling models has been funding to support reemployment services for those profiled, despite 25 years of rigorous evaluation and evidence that reemployment services help speed reemployment and reduce UI duration.[v]

COMMISSION QUESTION #19: To what extent should evaluations specifically with either experimental (sometimes referred to as "randomized control trials") or quasi-experimental designs be institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?

The Commission should explicitly recognize there is a place for both experimental and quasi-experimental design in evaluation work. While experimental design may be the "gold standard" of evaluation, it is extremely costly and also not the most appropriate research design in many cases. Also, quasi-experimental design is more easily accepted by those who deliver services. State workforce agencies have used the results of quasi-experimental research to inform policy and practice, and should have the flexibility to use research designs appropriate to their needs.

Appendix A

Funding for Major Workforce Progams (Constant 2009 Dollars)

Source: Data USDOL Chart: NASWA
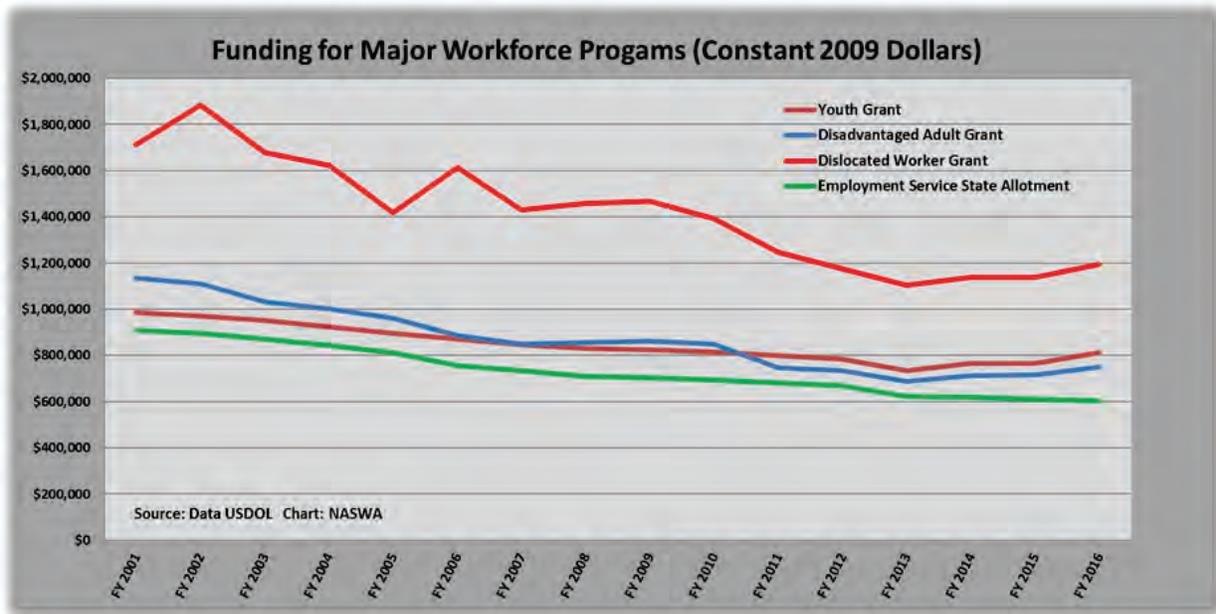
Funding for the Major Workforce Development Programs Under the U.S. Department of Labor (adjusted for inflation)			
	FY 2001 ($2009)	FY 2016 ($2009)	% Reduction
Dislocated worker grant	1,712	1195	30
Disadvantaged adult grant	1,134	749	34
Youth grant	984	813	17
Employment services	909	603	34

Appendix B
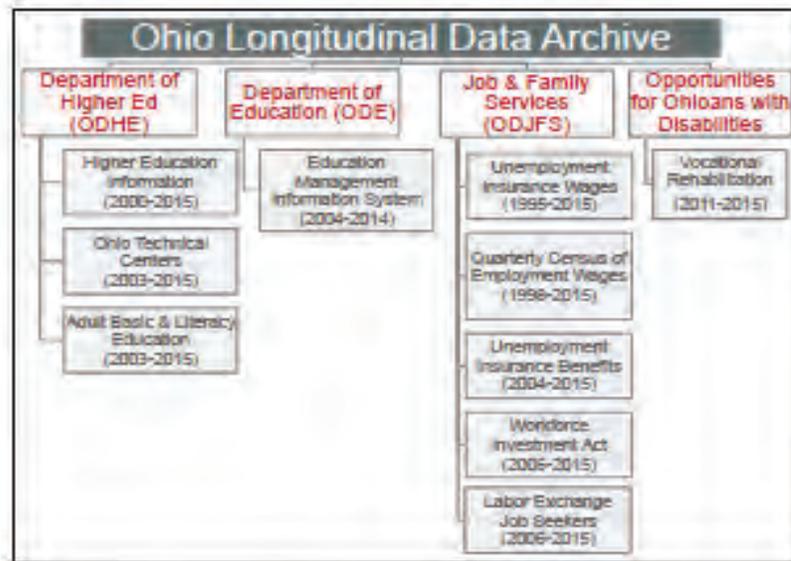
Data Gaps

The OLDA does not include:
- Out of state data
- Data from private institutions
- Occupation codes
- Direct linkages from K-12 student data to other OLDA data

Security & Privacy

Equipment and location
De-identification
Cell sizes

Sharing Results

Agency review
Research brief of policy implications
Bibliography

[i] See, for example: *Reemployment Unemployment Insurance Claimants: A Good Government Investment*, Richard A. Hobbie and Yvette Chocolaad, in <u>Transforming U.S. Workforce Development Policies for the 21st Century</u>, Carl Van Horn, Tammy Edwards, and Todd Greene, Editors, Federal Reserve Bank of Atlanta, 2015; and <u>Solving the Reemployment Puzzle: From Research to Policy</u>, Stephen A. Wandner, Urban Institute, 2010.

[ii] See: *Crossing Boundaries: Regional Data Sharing to Study Worker Mobility*, by Michelle Massie, WDQC, December 2014.

[iii] Initial findings from the scan (41 state responses):

- Two-thirds of state workforce agencies report that staff capacity (a concept that encompasses staffing levels, staff skills, and staff experience) for research and evaluation is nonexistent, inadequate or fair.

- Looking across 15 specific research skills areas (such as using statistical methods, employing technical writing, analyzing large data bases, and conducting experiments), forty percent to 78 percent of state workforce agencies report they would like some or need more technical assistance or staff capacity.

- Over half the state workforce agencies report funding is inadequate, and 56 percent of state workforce agencies with knowledge of funding trends report that funding is lower or much lower than in the past.

[iv] Some states have made enhancements to their wage records. See: *Enhancing Unemployment Insurance Wage Records: Potential Benefits, Barriers and Opportunities*, Prepared for the Workforce Information Council by the Administrative Wage Record Enhancement Study Group, September 2015.

[v] See footnote i.

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General Comment

See attached file(s)

Attachments

Casey Family Programs Comments_Commission on EvidenceBased
Policymaking_FINAL.11.8.2016

November 8, 2016

Ms. Shelly Martinez
Executive Director
Commission on Evidence-Based Policymaking
U.S. Department of Commerce
1401 Constitution Ave., NW
Washington, D.C. 20230

Docket Number: ID USBC-2016-0003

Subject: Casey Family Programs public submission to the "Commission on Evidence-Based Policymaking Comments"

Dear Ms. Martinez:

Casey Family Programs is the nation's largest operating foundation focused on safely reducing the need for foster care and building Communities of Hope for children and families across America. Our mission is to provide and improve — and ultimately prevent the need for — foster care. Founded in 1966, Casey Family Programs works in all 50 states, the District of Columbia and Puerto Rico and with 15 sovereign tribal nations to influence long-lasting improvements to the safety and success of children, families and the communities where they live.

We partner with state and local child welfare systems, American Indian tribes, policymakers, courts, families and youth to support practices and policies that increase the safety and success of children and strengthen the resilience of families. We make **effective investments in children and families** by supporting and conducting evaluations of programs, analyzing child welfare and cross-system data, and providing resources on what works to practitioners and policymakers. These efforts support system improvements by helping service providers, courts and other partners make better decisions on behalf of children and families. We support research and data analysis that can also help policymakers at all levels identify programs and investments that contribute to improved outcomes.

We submit these comments from the perspective that children and families deserve interventions that work. The effective use of data for both research and evaluation is one strategy to achieve better outcomes for children and families. Applying sound data, research, and evaluation findings to practice

decisions helps child welfare agencies and other partners fulfill their responsibility to deliver the most effective services possible, tailored to the needs and strengths of those they serve and within the resources available. Likewise, effective data infrastructure, data sharing and evidence building helps policymakers make the best decisions possible regarding the investment of public resources.

The Commission's work has the potential to improve child welfare and other human service agencies' ability to better use data, to increase the menu of evidence-based and effective programs, and to build the knowledge base of what works to support families. We are grateful for the opportunity to present the comments below. They provide an overview of current efforts, as well as steps that must be taken to build on the existing body of work to improve outcomes for children and families.

Evidence-Based Policymaking and Child Welfare

The child welfare system has broad impact on the lives of our nation's children. Recent analyses of the National Child Abuse and Neglect Data System (NCANDS), a national database for states' reports of child maltreatment, found that 1 in 8 U.S. children (12.5%) has been a confirmed victim of maltreatment by age 18.[1]

The mission of the child welfare system and its partners is to promote the safety, permanency, and well-being of children and families. Research indicates that children are more likely to thrive when they are able to safely remain at home with their own families.[2] When not possible, child welfare agencies strive to provide safe, effective, and temporary foster care while they work to safely return the child home. When timely family reunification cannot be achieved, the priority is to achieve safety and permanency with kinship families, adoptive families, or permanent legal guardians. Throughout a child's involvement in the child welfare system, research has shown that services and decisions must focus on a child's physical, emotional, and mental well-being and long-term success.[3]

Data and experience working with partners throughout the country tell us that child welfare policies are most effective when rooted in research, that investments are most effective when informed by that research, and that accountability is most effective when implementation and impact can be monitored through quality, multi-system data. Efforts to apply evidence-based policymaking are taking place at the community, state, tribal and federal levels. There are many efforts in the child welfare field on which to build. At the same time, a range of challenges has been identified. Development of effective state child welfare data systems has been challenging, and barriers to data sharing across multiple agencies and systems has hindered effective decision making and outcomes. Investment in program evaluation and child welfare research has lagged.

Tribes, as sovereign nations, face particular challenges in accessing and utilizing child welfare data. Since few tribes have their own data systems, it is particularly important to improve access to data and research that will help tribes identify practices and policies that work or can be adapted to fit tribal culture and to meet the needs of tribal children, families, and communities.

To explore new innovations for improving child outcomes, the federal government in 2011 expanded Title IV-E waiver demonstration programs for 28 states and one tribe for a limited time to allow states to experiment with new funding priorities and programs to serve children and families. All Title IV-E waivers expire on September 30, 2019. A report by Casey Family

Programs describes the use of evidence-based programs in the Title IV-E waivers demonstrations and includes information on the fiscal analysis of featured programs.[4] This report provides policymakers and the public with a resource on some of the evidence-based programs currently in use in child welfare.

Data Infrastructure and Access

Prior to specific recommendations about data infrastructure, it is important to first understand the challenges in collecting data across a broad array of agencies involved in child welfare systems, services, and decisions. Effective decision making requires understanding underlying causes of adverse events, addressing disparities across different subgroups, predicting risk to avert negative outcomes, and monitoring progress toward both child and system goals.

State and county child welfare agencies collect a great deal more information than the key data elements reported to the Children's Bureau through the voluntary NCANDS and the mandatory Adoption and Foster Care Analysis and Reporting System (AFCARS). Historically, child welfare data reporting and analysis has been challenged by cumbersome information technology systems, designated as Statewide and Tribal Automated Child Welfare Information Systems (S/TACWIS).[5] Some states have adopted more nimble reporting systems such as Results Oriented Management (ROM)[6] and Safe Measures,[7] as well as other for-profit products. With support from Casey Family Programs, states including California,[8] Colorado,[9] New Jersey,[10] Oregon,[11] and Washington[12] have created comprehensive child welfare data sites that aggregate outcomes over time, across different geographic levels, and by gender, race, and age. Newly released regulations for Comprehensive Child Welfare Information Systems (CCWIS) emphasize data interoperability and modular system development to reduce costs and increase efficiencies.[13] Going forward, CCWIS will allow ROM, Safe Measures, and other tools (such as CaseBook[14]) to be more affordable and widely available in reporting child welfare data.

Improving Data Quality for Evidence-Based Policymaking

A focus on better use of administrative data is key to data-driven decision making. Attention must be paid to improving the quality of data collected, along with the structure and frequency of data collection. Availability of community-level and geographic-specific data can help decision makers to identify risks and service gaps, opportunities and supports, and tailored strategies to help children thrive in their own communities.

The Commission's request for public comment inquired about feasibility and best practices of multi-system data clearinghouses. Ensuring the quality, comparability, and accessibility of each contributing system's data is a necessary first step in any use of cross-system data. A high proportion of missing data or errors in data entry can undermine attempts to accurately determine whether a particular program is effective. State and local program administrators may require fiscal and technological resources, as well as technical assistance, to address issues of data quality.

To improve outcomes, child welfare systems must continually collect, analyze, and learn from data that are relevant to child and family outcomes. The Continuous Quality Improvement framework is used by child welfare staff at all levels to feed data back into decision making to improve services and ensure that resources are being used effectively.[15] As states work to improve and standardize data reporting, detailed information similar to the state commentary provided for the federal Child Maltreatment report must be collected and disseminated to ensure

that researchers and evaluators are conducting analyses and interpreting results appropriately.[16]

Many evaluations of existing programs and services include only process factors that provide information regarding implementation. Evaluations must include both short- and long-term outcome measures to assess whether children and families are better off after being served by a program or service. In addition, child welfare and other human services data systems should collect and report analyses by race, ethnicity, and age, as well as other important variables.[17]

Attention must also be paid to the structure and frequency of data collection. Relying on point-in-time data may substantially distort observed outcomes.[18] Research in child welfare has established the importance of instead using prospective, longitudinal data.[19] Administrators and policymakers should pursue data development agendas that link individuals within family units and across multiple episodes of involvement with child welfare and other systems to fully understand program effectiveness.[20]

The recent adoption of longitudinal measures for federal Child and Family Services Reviews more accurately assesses child welfare outcomes at a state level.[21] The National Youth in Transition Database[22] is one attempt to collect outcome data to understand the impact of exiting the child welfare system without a permanent home. Other comparable, high quality, longitudinal data sources relevant to child welfare include the National Survey of Child and Adolescent Well-Being,[23] Longitudinal Studies in Child Abuse,[24] and the Fragile Families and Child Wellbeing Study.[25]

To support the effective use of data across states and systems, researchers and program managers must have the information necessary to make accurate comparisons to other programs and other jurisdictions. Such comparisons are challenging when state and local jurisdictions' regulations, policies, and data infrastructure vary.

For example, a nationally estimated 1,580 children died of abuse and neglect in 2014, at a rate of 2.13 per 100,000 children in the national population.[26] Yet, due to the lack of mandatory, standardized reporting across states, these sobering statistics are likely to substantially underestimate the number of child maltreatment fatalities.[27] Another federal commission, the Commission to Eliminate Child Abuse and Neglect Fatalities, recommended in March 2016 that the U. S. Department of Health and Human Services should provide national standards, propose methodology, and provide technical assistance to help states analyze their data from the previous five years to identify the child, family, and systemic characteristics associated with child maltreatment deaths. This work will enable states to use data to explore innovative ways to address the unique factors that contribute to child abuse and neglect fatalities. Increased efforts must be made to collect more accurate data and, more importantly, to prevent those deaths and severe injuries.[28]

Geographic Specificity and Community-Level Data

Another priority for human services research is understanding community-level influences on the well-being of children and families, an effort for which geographically identifiable information is needed. Availability of data for smaller geographic areas allows for the analysis of neighborhood effects and conditions, as well as a better understanding of geographic dispersion of risk, need, and resilience. Casey Family Programs provides some excellent examples of geographic analysis at this level.[29] Several public child welfare agencies and other entities are

releasing and presenting administrative data at the county, metro, or even census tract level. These agencies are developing community support and data use agreements that allow for transparency and access, and a lot can be learned from them.

The Importance of Multi-System Data

Achieving safety, permanency and well-being outcomes for maltreated children requires efforts and information beyond the public child welfare agency. Families touched by child welfare are typically involved with other child-serving and human service agencies and systems — economic security benefit programs, medical services funded by Medicaid and other sources, behavioral health, substance abuse, housing, adult corrections, juvenile justice, special education, domestic violence, and more. Of the 259,488 children who entered foster care in FY2014, 32 percent were removed due to parental substance abuse, 12 percent indicated child behavior problems, 10 percent had inadequate housing, and 8 percent had one or more parents incarcerated.[30]

To make informed decisions about the most effective response to a child and family often requires access to data from multiple systems. In addition, many key decisions are made or strongly influenced by those outside the public child welfare agency. For example, in most jurisdictions, child protection agencies accept reports and conduct investigations of suspected child abuse and neglect. However, in some jurisdictions, local law enforcement agencies conduct or collaborate in these activities. Along the same lines, the child protection agency determines when an emergency situation requires removal of a child from the family in some jurisdictions, while other states and local jurisdictions give the authority for emergency removal to local law enforcement. Many key child welfare decisions are made by the courts and informed by the public child welfare agency as well as law enforcement, health care providers, school staff, and other service providers.

Interoperable multi-system data is critical to ensure that families receive coordinated, comprehensive services, to make effective decisions regarding their care, and to determine the effectiveness of those services and decisions. Multi-system data has tremendous potential to help practitioners, administrators, and policymakers to identify children who are at-risk of harm, to most effectively prevent maltreatment, and to intervene to achieve safety, permanency, and well-being. Some communities and some states are coordinating or integrating multi-system data for vulnerable children, but leadership from the federal level is needed to set standards and encourage compliance and participation.

We strongly endorse the use of multi-state and multi-system data clearinghouses in support of evidence-based policymaking. The lessons learned regarding best practices in the quality and availability of child welfare data needed to support evidence-based programs also apply to other human services systems. These lessons should be considered as the Commission investigates how to increase the availability and use of multi-system government data to build evidence and inform program design.

In addition to development of Comprehensive Child Welfare Information Systems (CCWIS), many states are using enhanced federal funding for health exchange eligibility to implement new integrated health and human services eligibility systems that support interoperable data.[31] These developments will support multi-system data reporting and analysis going forward.

A key decision point that will require significant forethought and ongoing coordination involves the determination of which variables will be included in multi-state, cross-systems clearinghouses. A data governance committee made up of representatives from multiple stakeholder groups and geographic areas should be involved in this decision-making process to ensure that clear cross-system data management policies and practices are in place. Addressing these issues is of paramount importance prior to establishing any clearinghouse for administrative and survey data.

Some examples of linked, longitudinal, and/or cross-sector data include:

- The Federal Statistical Research Data Center[32] and its branches are also promising new developments of linking secure public data and improving access.

- The Washington State Department of Social and Health Services has developed an Integrated Client Database.[33]

- University of South Florida's Policy and Services Research Data Center integrates data across a variety of agencies in order to promote policy-driven research and enhance health and human services' programs and practices.[34]

- Allegheny County's Predictive Risk Modeling project in the Pennsylvania Department of Human Services uses linked cross-sector data and predictive analytics to produce a family risk score at intake for a child maltreatment report.

- Partners for Our Children at the University of Washington is helping develop, with public and private funding, technological solutions to streamline services between youth homelessness and child welfare by linking data.

- Casey Family Programs is partnering with Mathematica Policy Research to link Medicaid and child welfare data in a tri-county area in Florida and the State of Tennessee to identify high service users. Such linkages are rare, despite the fact that Medicaid funds pay for many of the services used by children and families in the child welfare system. The potential to access Medicaid data and to make decisions informed by that information is promising, but will require federal leadership.

The abovementioned projects provide examples of how philanthropy or government grants can serve as a catalyst in initiating cross-system data. The business and technology sector could also be important partners, with available resources and a desire to put their expertise and capacity to good use. They have significant government sector portfolios that position them to offer valuable experience. There are other examples of state and local government, university partnerships, and projects that are engaging in these efforts. The Commission could likely learn a lot about what it takes to create and sustain these efforts, the best applications of them, and common gaps. Efforts to promote evidence-based, cross-system policies and programs should promote resources and funding for evaluation in child welfare and incentives for other scientific fields (such as mental health, behavioral health, housing) to conduct research on families involved with child welfare, recognizing the extent of cross-system involvement.

In addition to federal efforts, public-private partnerships have potential for data sharing and evaluation. The Commission could use this opportunity to promote the public-private partnerships to evaluate multi-sector federal demonstration projects. An example is the U.S.

Department of Health and Human Services (Administration for Children and Families, Children's Bureau) five-year demonstration to test supportive housing for families in the child welfare system in five cities.[35] The project's goal is to encourage local implementation of supportive housing programs that integrate other critical supports for this population through partnerships with community-based service providers. Services include customized case management services for children and their parents, as well as trauma-informed interventions and evidence-based mental health services. The federal government expects outcomes of this initiative to be a reduction in child maltreatment, child removals, foster care placements and overall child welfare system involvement. Four private foundations, including Casey Family Programs, are supporting a national evaluation of the project by the Urban Institute to maximize the knowledge gained from the demonstration. Efforts should be made to ensure that every federal demonstration has a solid evaluation component and the results are broadly disseminated.

Data Access and Privacy

Cross-sector and cross-system access to data can encourage collaboration. Access to data should help researchers build the evidence base of programs and support a deeper understanding of the potential uses of data to inform public policy. At the same time, a multi-state, multi-system approach to data collection and analysis necessarily raises issues of privacy and data security. Information disaggregated by certain parameters may lead to unintended identification of individuals and families in smaller samples.

Appropriate data safeguards are of paramount importance, particularly given the sensitive and stigmatizing nature of involvement with many human services systems.[36] However, ensuring access to any clearinghouse by qualified researchers — which should include both academic researchers, as well as experts embedded in other nonprofit settings — will result in substantially increased capacity for analyzing and disseminating research findings. One model for appropriately managing access to data is the Interuniversity Consortium for Political and Social Research.[37] Encouraging comparatively broad access to data can lead to cross-sector collaborations that result in a net benefit for families and communities, such as the recently announced public-private partnership between the U.S Department of Health and Human Services Administration for Children and Families, Casey Family Programs, and the Annie E. Casey Foundation to strengthen families and improve outcomes for foster youth through identification of evidence-based strategies and investments in data-driven decision making.[38]

Evidence-Based Program Design, Evaluation, and Dissemination

We applaud the Commission for recognizing the need to develop infrastructure for evidence-building that will inform program design and implementation, along with policies and investments that will promote effective programs. Despite the critical importance of the child welfare system in protecting children and supporting families, this field lags behind others in terms of investments in research and evaluation.[39] Policies should provide resources and incentives to achieve a science-driven, evidence-based service delivery system. We recommend strategies to develop research capacity that will help apply findings to effective program implementation, outcome monitoring, and policy decision making.

The Washington State Institute for Public Policy (WSIPP) is an example of an initiative by state legislators to develop capacity for practical, non-partisan research that is used to make policy and program decisions. Created in 1983, WSIPP works closely with legislators, legislative and state agency staff, and experts in the field to ensure that studies answer relevant policy

questions, including an inventory of evidence-based practices on a broad range of social policy. Since the 1990s, the Washington state legislature has directed WSIPP to identify evidence-based policies. The goal is to provide Washington policymakers and budget writers with a list of well-researched public policies that can, with a high degree of certainty, lead to better statewide outcomes coupled with a more efficient use of taxpayer dollars.[40] Although the menu of evidence-based child welfare programs is limited, WSIPP's meta-analyses of research on particular programs and analyses of cost-benefits have become useful resources for state policymakers across the country.

Development of Evidence-Based Programs

Casey Family Programs is committed to strategies and developments that help agencies better use and develop research evidence. In collaboration with Chapin Hall and W.T. Grant, we are synthesizing, and moving toward testing, concrete strategies that help agencies better use data. These publications may be of interest to the Commission.[41] It is not enough to produce research and evaluation results. We must also put them into practice.

The California Evidence-Based Clearinghouse for Child Welfare (CEBC),[42] as well as WSIPP, highlight the relative dearth of well-supported evidence-based programs that span the service continuum for families involved with child welfare. The FRIENDS National Center for Community-Based Child Abuse Prevention provides a similar framework for assessing the strength of evidence supporting particular programs,[43] and maintains a registry of prevention programs to aid program managers.[44] Results First, a clearinghouse jointly supported by the Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation, aggregates multiple databases of human services evidence-based programs.[45] These registries serve a valuable function in helping program planners access readily information for planning or refining their strategies.[46] At the same time, efforts to implement evidence-based practices in child welfare and human services acknowledge that information on what works is only the first step; additional resources are needed to implement evidence-based programs with fidelity, and to cover any licensing fees and evaluation costs that may be required.

Several barriers exist for program managers or agency leaders to better use available data and take advantage of research findings that document what works. To address these barriers requires creating a culture of learning, organizational capacity, and technical expertise. As outlined in Guidelines for Child Welfare by the American Professional Society on the Abuse of Children (APSAC) Task Force on Evidence-Based Service Planning, a science-informed approach to service planning is critical to achieve the child welfare system goals of child safety, permanency, and well-being.[47] Yet, as noted in a response by the author, Benjamin Saunders, this shift toward helping all families receive evidence-based service plans requires resources and changes in organizational culture that are challenging, particularly in child welfare.[48] It means conducting sound assessments; identifying specific, measurable intervention goals directly related to the difficulties experienced by the family; using critical thinking to select the most effective interventions and trained service providers to meet these goals; problem solving to remove obstacles to child and family engaging in and completing the interventions; ongoing monitoring of progress toward the goals; altering the treatment plan if needed in response to progress (or lack thereof); and carefully assessing whether or not positive outcomes have been achieved. These advanced practice skills go far beyond compiling a list of (evidence-based) services.

To address these challenges, efforts should be made to provide resources and incentives to achieve a science-driven, evidence-based service delivery system. Casey Family Programs has supported and partnered with several states (including Connecticut, New Jersey, New Mexico, and New York) to provide the child welfare workforce with the continuous quality improvement skills, resources, and support to improve outcomes for children and families.[49] Such approaches should be evaluated and potentially replicated on a broader scale.

Our recommendations include the following:

- Consistent with recommendations of the Commission to Eliminate Child Abuse and Neglect Fatalities, prioritize research on prevention of child maltreatment and other adverse outcomes under the purview of the U.S. Department of Health and Human Services.

- Continue to build on the success of federal grant opportunities, such as the Regional Partnership Grants in Child Welfare as part of Title IV-B, Promoting Safe and Stable Families. These grants have established sustainable, evidence-informed substance abuse programs serving a large number of families each year.

- Provide infrastructure development grants to help establish promising and evidence-informed programs along with a HUB or Center that promotes replication. Such HUBs, often at a university, produce and promote replication materials, curricula, training, financing structure, and ongoing evaluation mechanisms needed to take a promising program to scale with cross-jurisdiction replication. This model has been used to help expand the reach of Nurse Family Partnership, Healthy Families, and other home-visiting models. This type of program and evaluation hub is less common in child welfare, though SafeCare at the University of Georgia serves as a good model.

- Recognize human service fields as dynamic systems with program development continuously underway, new ideas piloted, and promising models moved along the continuum to become evidence-based. Methodologically appropriate research for each stage of program development, including implementation studies, should be valued and resourced. These efforts ensure that innovation occurs, that promising, but previously unevaluated models have an opportunity to establish themselves, and that more programs become evidence-based.

- Prioritize research on program effectiveness with different racial, ethnic, and economic groups and on cultural adaptations with fidelity to ensure that programs and policies meet the needs of the people they serve and are effective.

- Explore models of university and agency partnerships where research staff are embedded within a child welfare agency (sometimes utilizing split positions with a joint university faculty appointment). Such models can promote use of available administrative data in a more effective and sophisticated way that moves beyond performance monitoring and integrates research into the culture of the agency staff. As noted in W.T. Grant's public comments to the Commission (by their President Adam Gamoran), these partnerships are key to making sure that research is used to improve outcomes.

- Ensure evaluation funding for child welfare is equitable relative to other fields and the societal impact of child maltreatment, which is estimated to have a lifetime cost of $124 billion for one year of confirmed child maltreatment cases.[50]

Conclusion

We have presented these comments from the perspective of our work with child welfare systems throughout the United States. We are invested in a broad array of activities and cross-sector collaborations that support healthy children, strong families, and supportive communities as part of Building Communities of Hope and a greater vision of child welfare as more than the public agency.

The child welfare system has its own unique challenges when it comes to the development and use of research evidence. These stem from limited resources within the workforce to have the capabilities and capacity to engage in and develop a science-driven practice culture, limited resources for research and evaluation, and, relatedly, a minimal supply of evidence-based programs established for a child welfare population from which agencies and providers can choose or tailor to the needs of their population. We hope that the work of this commission will help advance our field and others that the families we serve touch. It is a powerful opportunity to improve the effectiveness of services and the development and refinement of policies that make a positive difference in the lives of children and families.

We appreciate the opportunity to share our perspective and recommendations.
If you would like additional information, please contact Christine Calpin, Managing Director of Public Policy, at (202) 728-2001 or via email at ccalpin@casey.org.

Sincerely,

William C. Bell, Ph.D.
President and CEO

References and notes

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PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0134
Comment on FR Doc # 2016-22002

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General Comment

See attached file(s)

Attachments

11.14.16 COMMENTS_Commission on Evidence-Based Policymaking_v2

![National Head Start Association logo](N H S A - NATIONAL HEAD START ASSOCIATION)

November 14, 2016

U.S. Department of Commerce
Commission on Evidence-Based Policymaking

RE: RESPONSE OF THE NATIONAL HEAD START ASSOCIATION TO THE
        REQUEST FOR COMMENTS REGARDING THE COMMISSION ON EVIDENCE-
        BASED POLICY MAKING

Thank you for providing us with the opportunity to submit our comments regarding the Commission on Evidence-Based Policymaking (Federal Register Volume 81, Number 178 (Wednesday, September 14, 2016) Pages 63166-63168).

The National Head Start Association is a non-partisan, not-for-profit organization that believes that every child, regardless of circumstances at birth, has the ability to succeed in life if given the opportunity that Head Start offers to children and their families. NHSA is that national voice for more than a million children in Head Start and Early Head Start programs in the United States.

Below we offer responses to some of the questions posed in your request for comments. We appreciate the opportunity to contribute to the efforts of the Commission and your consideration for ensuring that all developed policies are sensitive to the needs of our nation's children.

(Re: Question 5) **Current challenges in linking federal Head Start data with other local and state data systems include data software platforms that are not interoperable, data reporting requirements that are incongruent, and difficulty securing data sharing agreements.** Currently local Head Start programs use a number of different software platforms to store and manage data, not all with the capability of connecting with state data software platforms. An example of a state that managed to address this is Georgia's Department of Early Care and Learning which secured a license that allows for a direct upload from ChildPlus (the software vendor used by the majority of Head Start programs). However, securing a license can be costly and only works if there is common vendor. A potential solution would be for the state or federal government to create an open source software platform, such as Blockchain.

Another major challenge results from incompatible reporting requirements. Head Start programs are required to collect substantial amounts of data around children and families and report them via the Public Information Report, which is sent to the Office of Head Start. However, often the

types of data and the timing of the collection are out of sync with state and local reporting requirements, which can lead to additional administrative burden on programs.

In addition, there is also the substantial challenge of negotiating individual data sharing agreements. Having data-sharing agreements in place ensures that data will be stored and managed centrally and used appropriately. However, without having a centralized figure to create a template, states are often reluctant to enter into the process. North Carolina and Georgia have overcome this challenge by meaningfully involving all stakeholders early on in the process. These states now have nearly 100 percent participation of Head Start programs linking their federal program data with a state data system. Again, the use of Blockchain technology, which allows for more trust through enabling collaboration of decentralized data systems, should be given due consideration.

(Re: Question 15) **Current barriers for using survey and administrative data include establishing unique identifiers, standardizing data definitions, and balancing privacy and access.** Unique identifiers are one of the largest roadblocks in using data in early childhood education. The resistance to and difficulty in assigning these identifiers often prevents the matching of data required for program management and evaluation. Even when data can be matched across organizations, there are often discrepancies in definitions that make it difficult to use. And finally, while regulations protecting information on children often make it difficult, if not impossible, to share data, it is also important to maintain students' privacy. We encourage the commission to establish recommendations that reflect both the specific privacy and consent needs of young children, while also encouraging purposeful data sharing to improve services.

(Re: Question 16) **Data, statistics, research results, and evaluation findings can best improve programs through improvement science.** Improvement science is a process wherein rapid-cycle data collection and analysis is used to evaluate the implementation and impact of any programming and inform small adjustments to improve quality. This process allows for programs to clearly see successes and failures in implementation, adjust accordingly for the next iteration, and continue improving to get better service and outcomes.

(Re: Question 19) **Both experimental and quasi-experimental designs have valid and important roles in evidence-based policymaking.** We have recently seen an over-emphasis on randomized control trials in the field of education. While RCTs are a valuable evaluation tool, they do not meet all the needs of the education field. We are particularly concerned about the slow turnaround of results from RCTs and whether they can be done practically and ethically with young children, particularly vulnerable children. While RCTs certainly have a place in policymaking, quasi-experimental methodologies have substantial value and should be a part of any foundation for evidence collection that is developed by the Commission.

U.S. Department of Commerce
Commission on Evidence-Based Policymaking
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It is our hope that you will develop recommendations that support the goals of the Head Start community: to improve the early environment and educational opportunities of children in poverty, while also protecting and supporting the nation's most vulnerable children.

Thank you again for the opportunity to provide comments. We look forward to seeing the recommendations of the Commission.
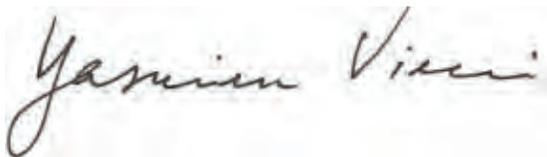
Sincerely,

Yasmina Vinci
Executive Director

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0135
Comment on FR Doc # 2016-22002

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General Comment

Attached are comments for the Commission on Evidence-Based Policymaking, pursuant to request dated September 8, 2016, Docket ID USBC-2016-0003, Question 16.

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Attachments

Comments of J Scanlan for Comm on Evidence-Based Policymaking (Nov. 14, 2016)

**COMMISSION ON EVIDENCE-BASED POLICYMAKING COMMENTS,
DOCKET ID USBC–2016–0003, QUESTION 16**

Submitted by:

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Table of Contents

INTRODUCTION

Set out below are comments in response to Question 16 of the September 8, 2016 Request for Comments for the Commission on Evidence-Based Policymaking. The question read: "How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?"[1]

The principal subject of these comments, addressed in Part I, involves the facts (a) that virtually all analyses of demographic and other differences involving rates of experiencing favorable or adverse outcomes have been fundamentally unsound as a result of the failure to recognize the ways measures of such differences tend to be affected by the prevalence of an outcome and (b) that, therefore, it is impossible for such analyses to improve policies and programs.[2] One focus of Part I concerns health and healthcare disparities research, a subject to which recently the budget of the National Institutes of Health has devoted over $2.7 billion per year. Among other problems with such research, a large part of which involves efforts to determine whether health and healthcare disparities are increasing or decreasing over time, it has universally failed to recognize that as health and healthcare generally improve, relative (percentage) differences between the rates at which advantaged and disadvantaged groups experience adverse outcomes (*e.g.*, mortality, non-receipt of appropriate care) tend to increase while relative differences in the rates at which such groups experience the corresponding favorable outcomes (*e.g.*, survival, receipt of appropriate care) tend to decrease. In fact, although more than a decade ago the National Center for Health Statistics recognized that relative differences in adverse health and healthcare outcomes and relative differences in the corresponding favorable health and healthcare outcomes tend to change in opposite directions as health and healthcare generally improve, no other federal agency and no more than a few nongovernmental researchers have recognized that it is even possible for the two relative differences to change in opposite directions as there occur general changes in health and healthcare outcomes.[3]

Thus, researchers analyzing health and healthcare disparities in terms of relative differences in favorable outcomes commonly reach opposite conclusions about directions of changes from researchers examining such disparities in terms of relative differences in the corresponding adverse outcomes. They do so, moreover, without recognizing even the

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[1] To facilitate consideration of issues raised in documents such as this I include links to referenced materials in electronic copies of the documents. I do not include links with every mention of an item, but attempt to include them often enough to make online items readily available without the reader's having to search for an earlier link. An electronic copy of this document is available on the Institutional Correspondence subpage of the Measuring Health Disparities page of jpscanlan.com. Since the online copy may be corrected or annotated, I include here a link to the most recent version (which, if corrected or annotated, will so indicate on the first page).

[2] The request for comments and underlying statute are focused on government data. The analyses discussed here are sometime based on government data and sometimes based on other data. But issues regarding soundness of analyses and potential to improve programs are the same regardless of the origin of the data.

[3] I do not want to encumber this introduction with either tabular illustrations or discussions of illustrative numbers. Readers not readily comprehending why relative differences in favorable outcomes and the corresponding adverse outcomes can, or will tend to, change in opposite directions as the prevalence of an outcome changes may wish to refer to Tables 1 and 2 in Section I.A *infra* before proceeding further.

possibility that the relative difference in the opposite outcome could yield a conclusion contrary to that yielded by the relative difference in the outcome they are examining. More important, they do so without thought to the effects of changes in the prevalence of an outcome on the relative difference examined. As of result of this and related failures of understanding regarding the ways measures tend to be affected by the prevalence of an outcome, virtually nothing written about whether health and healthcare disparities are increasing or decreasing over time, or regarding the comparative size of such disparities in one setting compared with another or regarding one outcome compared with another, has had a sound statistical basis. And virtually all of it has been in some manner misleading.

The same holds for analyses of demographic differences regarding matters other than health and healthcare outcomes. For example, no analysis of racial differences regarding things like meeting proficiency standards and graduating from high school has yet recognized that general increases in proficiency and graduation rates will tend to reduce relative racial/ethnic differences in rates of reaching various proficiency levels and graduating while increasing relative differences in rates of failing to reach the proficiency level and failing to graduate. The failure to understand this matter with regard to educational outcomes remains essentially universal notwithstanding that data from the tests underlying such patterns make abundantly clear that lowering a test cutoff, or generally improving test performance, will tend to reduce relative differences in pass rates while increasing relative differences in failure rates.

Another focus of Part I involves the belief underlying federal civil rights law enforcement policies pertaining to fairness in lending, school discipline, criminal justice, and employment that relaxing standards or otherwise reducing the frequency of adverse outcomes will tend to reduce relative racial/ethnic and other demographic differences in rates of experiencing those outcomes. Exactly the opposite is the case. As with lowering a test cutoff, relaxing a standard and thereby reducing the frequency of an adverse outcome, while tending to reduce relative differences in rates of experiencing the corresponding favorable outcome, tends to increase relative differences in rates of experiencing the adverse outcome itself.

In consequence of the failure to understand this matter on the part of federal civil rights enforcement agencies and the research community, for decades countless entities covered by federal civil rights law that have complied with government encouragements to reduce the frequency of adverse outcomes have increased the chances that the government will sue them for discrimination. Such entities include, in recent years, the hundreds or thousands of school districts (and a number of states) that have been relaxing public school discipline standards while mistakenly believing that doing so will tend to reduce relative racial/ethnic and other demographic differences in rates of adverse discipline outcomes like suspension and expulsion. In fact, rarely will a month pass without the prominent reportage of efforts to reduce relative demographic differences in discipline rates by generally relaxing discipline standards, even as jurisdiction after jurisdiction reports that general reductions in discipline rates have been accompanied by increased racial/ethnic differences in discipline rates.

Meanwhile, the Department of Justice has been vigorously seeking to reduce relative differences in criminal justice outcomes (or measures that are functions of those relative differences) in Ferguson, Missouri, Baltimore, Maryland, and any number of other jurisdictions,

by modifications of practices in ways that are more likely to increase those differences than reduce them. And reports of a presidential commission and the National Research Council reflect no better an understanding of the connection between the prevalence of adverse criminal justice outcomes and relative differences in experiencing the outcomes than the Department of Justice.

Further, in a range of contexts, entities covered by civil rights laws are required to justify practices with disparate impacts on protected groups and to implement less discriminatory alternatives even to justified practices. The governmental bodies imposing these requirements or monitoring and enforcing compliance with the requirements, as well as those adjudicating disputes as to compliance, do so while unaware that modifications to practices will commonly increase relative differences in one outcome while reducing relative differences in the opposite outcome.

The same misunderstanding reflected in the above-discussed civil rights enforcement activities are involved in perceptions about a wide range of policies directly aimed at mitigating demographic differences in adverse outcomes. For example, programs providing relief against foreclosure on home loans are universally regarded as means of reducing the relative racial/ethnic differences in foreclosure rates. While such programs will tend to reduce relative differences in rates of avoiding foreclosure, they will tend to (in fact will almost certainly) increase relative differences in foreclosure rates.

Recommendations to the Commission pertaining to Part I include (a) that the Commission form a committee to examine the soundness of analyses of differences involving outcome rates and explore methods for improving such analyses; (2) that the Commission recommend to Congress that it establish a permanent body to advise Congress and Executive Branch agencies on the statistical soundness of government-funded and other research; (3) that the Commission recommend that Congress require that all requests for federal funding include a statement as to whether and how the contemplated research will attempt to distinguish between the extent to which changes in the measures employed in research (or the comparative size of such measures in different settings) are functions of the prevalence of an outcome and the extent to which the changes reflect the effects of policies or indicate actual changes in the comparative circumstances of advantaged and disadvantaged groups; (4) that the Commission recommend that Congress take measures to ensure that federal civil rights law enforcement policies, and its own legislative actions, are not based on the mistaken belief that reducing the frequency of adverse outcomes tends to reduce relative demographic differences in rates of experiencing those outcomes; and (5) that the Commission recommend that Congress take measures to ensure that all laws and regulations requiring the monitoring of demographic differences or imposing obligations regarding disparate impacts provide guidance on how such differences and impact are to be measured.

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Recent substantial treatments of issues addressed in Part I, with many examples of the pervasive failure to understand elementary statistical phenomena, may be found in my "The Mismeasure of Health Disparities," *Journal of Public Health Management and Practice*

(July/Aug. 2016) (JPHMP commentary),[4] "Race and Mortality Revisited," *Society* (July/Aug. 2014), "The Perverse Enforcement of Fair Lending Laws," *Mortgage Banking* (May 2014), "Measuring Health and Healthcare Disparities," Proceedings of the Federal Committee on Statistical Methodology 2013 Research Conference (March 2014) (FCSM paper), "The Mismeasure of Discrimination," Faculty Workshop, University of Kansas School of Law (Sept. 2013) (Kansas Law paper), as well as my amicus curiae brief in the U.S. Supreme Court in the case of *Texas Department of Housing and Community Development v. The Inclusive Communities Project, Inc.* (Nov. 2014) (TDHCA brief) and my October 8, 2015 letter to the American Statistical Association (ASA) (October 2015 ASA letter). The most recent extended collection of graphical and tabular illustrations of the pertinent statistical patterns may be found in my quantitative methods seminar "The Mismeasure of Health Disparities in Massachusetts and Less Affluent Places," Department of Quantitative Health Sciences, University of Massachusetts Medical School (Nov. 2015) (UMMS seminar). A less recent extended treatment of the issues may be found in my guest editorial in the Spring 2006 issue of the American Statistical Association publication *Chance*, titled "Can We Actually Measure Health Disparities?" (2006 *Chance* editorial), to which I will make a number of references below.[5]

Recent, more succinct treatments of key statistical issues, with a focus on federal law enforcement anomalies, may be found in my "Misunderstanding of Statistics Confounds Analyses of Criminal Justice Issues in Baltimore and Voter ID Issues in Texas and North Carolina," *Federalist Society Blog* (Oct. 3, 2016), "Things DoJ doesn't know about racial disparities in Ferguson," *The Hill* (Feb. 22, 2016), "Things government doesn't know about racial disparities," *The Hill* (Jan. 28, 2014), "The Paradox of Lowering Standards," *Baltimore Sun* (Aug. 5, 2013), and "Misunderstanding of Statistics Leads to Misguided Law Enforcement Policies," *Amstat News* (Dec. 2012). A recent, somewhat more extended treatment of the law enforcement anomalies, with a focus on misunderstandings reflected in President Barrack Obama's July 7, 2016 speech on racial/ethnic differences in criminal justice outcomes, may be found in my "Things the President Doesn't Know About Racial Disparities," *Federalist Society Blog* (Aug. 5, 2016). A recent succinct treatment of the pattern whereby relative differences in adverse outcomes tends to be larger, while relative differences in the corresponding favorable outcomes tend to smaller, in settings where the adverse outcomes are comparatively uncommon (including nations like Norway and Sweden and states like Minnesota) than in settings where adverse outcomes are comparatively common may be found in my "It's easy to misunderstand gaps and mistake good fortune for a crisis," *Minneapolis Star Tribune* (Feb. 8, 2014).[6]

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[4] These comments do not attempt to employ a standard or consistent citation format. They simply employ the formatting that is most useful or convenient in the circumstances, in some cases simply copying the citations used in other works.

[5] The recent extended treatments all discuss a measure of differences between outcome that is theoretically unaffected by the prevalence of the outcome, while the 2006 Chance editorial does not.

[6] The patterns discussed in the *Star Tribune* commentary with regard to Norway, Sweden, and Minnesota are addressed with regard to Massachusetts in the UMMS seminar. See the UMMS seminar abstract. See also the discussion of patterns of discipline disparities in Massachusetts in the letter to the Boston Lawyers' Committee for Civil Rights and Economic Justice (Nov. 12, 2015), which provides a narrative explanation of the data in Tables B1 and B2 (slides 67 and 68) of the UMMS seminar.

A recent, brief treatment of the uncertainties facing entities with obligations regarding the disparate impacts of practices as a result of the near universal failure to understand the ways measures tend to be affected by the prevalence of an outcome may be found in my "Is HUD's Disparate Impact Rule Unconstitutionally Vague?," *American Banker* (Nov. 10, 2014). A recent, more comprehensive treatment of the subject may be found in "Is the Disparate Impact Doctrine Unconstitutionally Vague?," *Federalist Society Blog* (May 6, 2016). See also Part II the TDHCD brief.

<div align="center">***</div>

As reflected in the October 2015 ASA letter, on October 8, 2015, I requested that ASA take certain actions to reform analyses of demographic differences and to explain to arms of the federal government that reducing the frequency of an adverse outcome will tend to increase, rather than reduce, relative racial and other demographic differences in rates of experiencing the outcome. The matter was referred to the organization's Science and Public Affairs Advisory Committee, which subsequently sought additional information regarding situations where the government encouraged the relaxing of standards to reduce relative differences in adverse outcomes. I responded by memoranda of December 14, 2015 and January 5, 2016. In a letter to ASA of July 25, 2016, in addition to informing the organization of developments since the October 2015 letter, I urged ASA to explain to President Barrack Obama that understandings about effects of modifications of practices on measures of racial/ethnic differences in criminal justice outcomes reflected in the President's July 7, 2016 speech on criminal justice disparities were incorrect.

In September 2016, the ASA informed me that the Science and Public Affairs Advisory Committee believed that I was effectively highlighting the issues raised in my communications to the organization and did not see an additional role ASA could play in disseminating information on such issues. But, whereas ASA has chosen not to take affirmative steps to promote the understanding of such issues, as a result of the organization's consideration of my October 2015 ASA letter and other communications by its Science and Public Affairs Subcommittee, the organization should be in an excellent position to advise the Commission regarding the validity of the points made in Part I of these comments. That holds both for the broader points in the comments and for the explanation that the government's belief that generally reducing adverse lending, school discipline, criminal justice, and employment outcomes will tend to reduce relative differences in rates of experiencing those outcomes is not merely incorrect, but is the opposite of reality.[7]

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[7] Explanations of why reducing the prevalence of an outcome tends to increase relative differences in experiencing the outcome (while reducing relative differences in the corresponding outcome) in ASA publications include the December 2012 *Amstat News* column and Spring 2006 *Chance* guest editorial previously mention and the article "Divining Difference," *Chance* (Fall 1994).

By letter of March 28, 2016, I requested the same action of the Population Association of American (PAA) and Association of Population Centers (APC) that I had requested of the ASA. At the end of April, the organizations advised that they were taking none of the requested actions because they did not prescribe statistical methods to the government or to their members. As with ASA, however, the leadership of these organizations should be able to advise the Commission as to the validity of the points I make in Part I of these comments.

In seeking the views of any person of organization of presumptive expertise, however, the Commission should be mindful that, so far as the published record reveals, there have been no recognitions that relative differences in experiencing an outcome and relative differences in avoiding the outcome tend to change in opposite directions as the prevalence of the outcome changes (or even that reducing the prevalence of an adverse outcome tends to increase relative differences in rates of experiencing it) other than in response to my explanations of these patterns.[8] And, for example, the belief that reducing adverse outcomes – whether regarding health and healthcare, lending, school discipline, criminal justice, or employment – will tend to reduce relative differences in experiencing those outcomes is widespread within the scientific community, while the understanding that it will tend to increase those differences is essentially non-existent (National Center for Health Statistics excepted).[9] Thus, when first asked, an experienced statistician or other data analyst might well say that a statement that lowering test cutoffs tends to increase relative differences in failure rates or that reducing poverty tends to increase relative differences in poverty rates is plainly false; but on reflection, and simply viewing the first two tables of these comments, the same person would almost certainly say that the statement is plainly true. Thus, while I encourage the Commission to seek input from the scientific community on the issues raised in these comments, I urge it to ensure that the persons providing such input consider the issues in depth.

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[8] I emphasize the published record. Given the elementary nature of the patterns I describe and that they are obvious in so many types of data, I assume that countless individual with and without statistical training have independently recognized the patterns even if they have not had occasion to publish such recognitions. See discussion of the work of Andrew Ho in Section I.B regarding the recognition of the pattern by which absolute differences tend to be affected by the prevalence of an outcome that might be deemed implicit recognition of the pattern by which the two relative differences tend to be affected by the prevalence of the outcome. Further, the patterns I describe as to relative differences in both outcomes are implicit in the widely understood pattern by which relative differences in favorable outcomes tend to be affected by the prevalence of an outcome. See October 2015 ASA letter at 14.

[9] A reflection of the current understanding of this subject in the social science community with respect to school discipline issues may be found in an article in the Winter 2017 issue of *Education Next* titled "What Do We Know About School Discipline Reform." Calling for research into whether modifications to practices that generally reduce discipline rates will in fact reduce relative racial/ethnic differences in discipline rates, the article cited one recent study showing that after substantial reductions in suspensions, relative racial/ethnic differences in discipline rates "continue" to be high. While referencing an instance where the conventional understanding was not borne out, the article showed no awareness whatever of the reasons to expect general reductions in discipline rates to increase relative racial/ethnic differences in suspension rates or of the numerous situations across the country in which such increases are in fact being observed. Current titles reflecting the near universal expectation that reductions in the prevalence of an outcome should reduce relative differences in experiencing it (or a measure that is a function thereof) are commonplace. See, among many others, "Despite Progress, Racial Disparities Persist," Sentencing Project (Aug. 19, 2016) and "Huge racial disparities persist despite slow infant mortality drop," USA Today (Mar. 9, 2016).

Finally, I note that, while most of my longer recent papers and all of my workshops and conference presentations since 2008 discuss a method for appraising the difference between the circumstances of advantaged and disadvantaged groups reflected by their outcome rates (sometimes characterized as the strength of the forces causing outcome rates to differ) that is unaffected by the prevalence of an outcome, I give little attention to such measure here. The purpose of these comments is to cause the Commission to address the failings of standard analyses of differences in outcome rates and to explore methods for effectively measuring such differences. The measure I have discussed is merely one of a number of measures the Commission may consider.[10] Further, attention to my proposed measure has on occasion diverted attention from the crucial issue of whether it is possible to analyze demographic differences in ways that can inform policy without consideration of the ways the measures employed tend to be affected by the prevalence of an outcome.[11] Thus, these comments can better serve their purpose with only limited attention to the measure that I have discussed at length elsewhere.

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Part II of the comments addresses the fundamental unsoundness of analyses of discrimination issues that are based on the examination of data solely on persons who accepted some outcome or situation and thus fail to consider the entire universe of persons seeking the most desirable outcome or situation. Almost all monetary recoveries in discrimination cases that have approached or exceeded $100 million have involved such analyses. These include the recent settlements of lending discrimination cases brought by the Department of Justice against Countrywide Financial Corporation and Wells Fargo Bank, with total recoveries exceeding half a billion dollars, that are discussed in the December 2012 *Amstat News* column and several other of the above references. This subject is treated in Section F (at 32-35) of the Kansas Law paper and Section I.C (at 27-30) of the TDHCD brief.

The subject is treated fairly succinctly with reference to fair lending issues in "Fair Lending Studies Paint Incomplete Picture," *American Banker* (April 24, 2013) and on the final page of "The Perverse Enforcement of Fair Lending Laws," *Mortgage Banking* (May 2014). Older treatments of varying length involving employment discrimination issues may be found in my "Illusions of Job Segregation" *Public Interest* (Fall 1988), "Multimillion-Dollar Settlements May Cause Employers to Avoid Hiring Women and Minorities for Less Desirable Jobs to Improve the Statistical Picture," *National Law Journal* (Mar. 27, 1995), and several other items referenced on the Employment Discrimination page of jpscanlan.com.

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[10] See "Race and Mortality Revisited" at 337. See also discussion of the odds ratio in note 49 *infra*.

[11] See (a) Mackenbach JP. Response to Scanlan. BMJ (July 14, 2016), and (b) Penman-Aguilar, Talih M, Moonesinghe R, Huang M. "Response to Scanlan Concerning: Measurement of Health Disparities, Health Inequities, and Social Determinants of Health to Support the Advancement of Health Equity. J Public Health Management Practice 2016;22(6), 614-615 [lttr]. While focusing on the measure I suggest as theoretically unaffected by the prevalence of an outcome, these responses leave entirely unaddressed whether health and healthcare disparities research can be of any value without considering the ways the measures employed tend to be affected by the prevalence of an outcome.

Analyses that fail to examine the entire universe at issue are also involved in the cases of *Bank of America Corp. et al. v. City of Miami* and *Wells Fargo & Co. v. City of Miami*, Sup. Ct. Nos. 15-1111 and 15-1112, which were argued before the Supreme Court on November 8, 2016 (though the issue before Court do not involve the merits of the claims).[12]

This subject is given brief attention at page 32 of the October 2015 ASA letter. But I would not regard the organization's consideration of my letter as putting it in a position to have a sound understanding of the subject. The organization, of course, does have the expertise to provide informed views on the issue should the Commission seek such views.[13]

Recommendations to the Commission regarding issue addressed in Part II are similar in to the above-mentioned recommendations regarding issues addressed in Part I.

Part III discuses the recommendations to the Commission regarding the issues addressed in Parts I and II.

I. The Unsoundness of Analyses of Demographic Differences That Fail to Consider the Effects of the Prevalence of an Outcome on the Measure Employed

There are four standard measures by which observers commonly quantify differences between rates at which advantaged and disadvantaged groups experience favorable or adverse outcomes: (1) relative (percentage) differences between rates of experiencing the outcome; (2) relative differences between rates of avoiding the outcome (i.e., experiencing the opposite outcome); (3) absolute (percentage point) differences between the outcome rates; and (4) odds ratios. None of these measures provides a sound basis for quantifying the differences in the circumstances of advantaged and disadvantaged groups reflected by their outcome rates because, for reasons related to the shapes of underlying risk distributions, each measure tends to be systematically affected by the prevalence of an outcome.[14]

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[12] Claims in these cases also implicate the subjects of Part I with regard to the failures to recognize that (a) the less the incentive for loan officers to issue subprime loans, the larger (not smaller) will tend to be relative racial/ethnic differences in receipt of subprime loans; (b) concentrations of foreclosures in disadvantaged neighborhoods will vary inversely with the frequency of foreclosures; (c) relative differences in assignment to subprime status and foreclosures will tend to be larger, while relative differences in avoiding those outcomes will tend to be smaller, among higher-income than lower-income borrowers. See, *e.g.*, the 2014 *Mortgage Banking* article.

[13] The letter to the Population Association of America and the Association of Populations Centers did not mention this subject at all. As with ASA, however, the organizations should be able to form views on the subject if requested by the Commission.

[14] As will be discussed in Sections A and C, observers often appraise demographic differences in terms, not of differences between outcome rates, but of differences between the proportion a group comprises of persons potentially experiencing an outcome and proportion it comprises of persons actually experiencing the outcome. It is for that reason that the Introduction refers to "differences involving outcome rates" rather than "differences between outcome rates." These comments will give attention both to the relationship between differences between outcome rates and differences between the two referenced proportions and to the impossibility of soundly analyzing demographic differences based solely on information regarding the two proportions. But, for simplicity, issues regarding the two proportions are given minimal attention in introductory material.

By way of broad summary, as an outcome changes in prevalence, the relative difference in rates of experiencing it and the relative difference in rates of avoiding it tend to change in opposite directions. More specifically, the relative difference in the decreasing aspect of the outcome tends to increase while the relative difference in the corresponding increasing aspect of the outcome tends to decrease. As the prevalence of an outcome changes, absolute differences between rates and differences measured by odds ratios tend also to change as the prevalence of an outcome changes, though in a more complicated way than the two relative differences. Roughly, as an outcome goes from being rare to being common, the absolute difference tends to increase; as an outcome goes from being common to being very common, the absolute difference tends to decrease. As the frequency of an outcome changes, the absolute difference tends to change in the same direction as the smaller relative difference. Since persons relying on relative differences to appraise demographic differences typically examine the larger of the two relative differences, such persons tend to systematically reach opposite conclusions about directions of changes over time from persons relying on absolute differences. As the prevalence of an outcome changes, the difference measured by the odds ratio tends to change in the opposite direction of the absolute difference.

As the prevalence of an outcome changes, all measures may change in the same direction. In that case, one may infer that there occurred an actual change in the difference between circumstances of two groups reflected by the outcome rates. But whenever a relative difference and the absolute difference change in different directions, the other relative difference will necessarily have changed in the opposite direction of the first relative difference and the same direction as the absolute difference.

For a variety of reasons, including actual changes in the strength of the forces causing outcome rates to differ (or actual differences in the strength of those forces in different settings),[15] one may observe many departures from these patterns. But it is impossible to evaluate the efficacy of policies aimed at mitigating differences in the circumstances of advantaged and disadvantaged groups (or to draw inference about underlying processes) without understanding the above patterns and attempting to distinguish between the effects of changes in measure that are functions of changes in the prevalence of an outcome and changes that are functions of other factors. It is also impossible to determine whether a particular measure indicates a large or small difference between the circumstances of advantaged and disadvantaged groups without understanding the effects of the prevalence of an outcome on the measure.

Further, the patterns I describe may provide useful benchmarks for identifying flawed interpretations of data (and potentially for divining a means of measuring demographic differences unaffected by the prevalence of an outcome). But with regard to the fundamental

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[15] Other factors include sampling variation, irregularities in the underlying distributions, factors related to the approaching of an irreducible minimum regarding outcomes like infant mortality. They also include the possibility that the underlying distributions may substantially depart from the normal distribution, among other reasons, because the universe being examined is comprised of truncated portions of normal distributions. See "Race and Mortality Revisited" and the materials it references (at 337) regarding factors creating potential problems with the measure discussed there. The same factors affect the likelihood of observing the described patterns in particular situations.

unsoundness of the standard approaches to analyzing demographic differences, the degree to which the measures in fact tend to be affected by the prevalence of an outcome comports with my descriptions is unimportant, as is the precise utility of the measure I suggest in various places is theoretically unaffected by the prevalence of an outcome. For as long as a measure tends to be affected by the prevalence of an outcome in any manner, it is not possible to employ the measure for a useful purpose without attempting to divine the role of the prevalence of the outcome in the setting examined. Indeed, the mere possibility for the patterns shown in the tables of these comments to exist in nature raises the same interpretative issue as the fact that such patterns will commonly, if not almost invariably, be found whenever there exist substantial differences in the prevalence of an outcome in the settings being compared.[16]

Yet, with few or no exceptions, persons analyzing demographic differences have done so without even recognizing that the measures employed tend to change as the frequency of an outcome changes and hence have never attempted to divine the role of the prevalence of an outcome in the settings examined. Thus, almost all such analyses have been statistically unsound and in some manner misleading. Even when a study may have correctly identified such things as the change in the direction of a demographic disparity, it will have been misleading by implying that the measure employed is effectively quantifying either the difference in the circumstances of two groups reflected by their outcome rates or the size of the change in such difference. Even a study that merely reports the size of a disparity is commonly misleading by suggesting that the measure employed is effectively quantifying the disparity between the circumstances of the groups being compared.[17]

Section A addresses the patterns by which relative differences in a favorable outcome and relative differences in the corresponding adverse outcome tend to be affected by the prevalence of an outcome and some implications of the failure to understand those patterns, while discussing other measures only to the extent necessary to make particular points. It gives particular attention to interpretations of health and healthcare disparities based on relative differences in a favorable or adverse outcomes and the 2004-05 recommendation of the National Center for Health Statistics regarding which relative difference to rely on, as well as the recent reversal of that recommendation and the repudiation of a decade of research that relied on the earlier recommendation. The section also gives particular attention to federal law enforcement policies

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[16] See the October 2015 ASA letter (at 27) regarding the interaction of other factors with the prevalence-related patterns described here, including discussion of why the patterns will be having an influence even when they are not specifically observed.

[17] Studies that attempt to determine the role of a particular factor in an observed disparity may not suffer from same problems as studies that attempt to examine changes over time or otherwise to compare the size of disparities in difference settings, at least so far as the primary purpose of the former studies is concerned. But the issues addressed here do affect the quantification of the observed disparity before and after adjustment for the factor and thus the quantifications of the part of the difference that is accounted for by the factor. That is so even though, say, in a situation where when the rates at which an advantaged group and a disadvantaged group experience an adverse outcome are 10% and 20% and adjustment for a factor would reduce the latter rate to 15%, one would observe the same 50% reduction in both relative differences and in the absolute difference. See Comment on Lynch JECH 2006 (2006) and Second Comment on Lynch JECH 2006 (2009). But one would not observe that same reduction for the difference measured by the odds ratio or the measure discussed in "Race and Mortality Revisited."

based on the mistaken belief that reducing the frequency of an adverse outcome will tend to reduce relative racial/ethnic and other demographic differences in rates of experiencing it.

Section B discusses the patterns by which absolute differences and odds ratios tend to be affected by the prevalence of an outcome and some of the implications of the failure to understand those patterns or the relationship of those patterns to the patterns by which the two relative differences tend to be affected by the prevalence of an outcome. The section gives particular attention to the analyses of healthcare disparities and public school proficiency disparities in terms of absolute differences between rates without consideration of the ways improvements in healthcare or education will tend to increase absolute differences regarding uncommon outcomes and reduce absolute differences regarding common outcomes.

Section C discusses problems with analyses of demographic differences based on the proportion a group comprises of persons potentially experiencing an outcome and the proportion it comprises of persons actually experiencing the outcome that go beyond the problems involved in standard analyses of differences between outcome rates. The section explains why a demographic difference should never be analyzed on the basis of comparisons of the two proportions.

Section D discusses problems with standard analyses of subgroup analyses arising from the failure to understand the patterns described here and the failure to understand the illogic of an expectation that a factor will tend to have the same relative effect on an outcome in situations involving different baseline rates for the outcome.

The reader will find considerable redundancy in the discussion in Sections A though D, especially with regard to relative measures. To some degree the redundancy occurs because many points are necessarily implied in other points. For example, the statement that reducing the prevalence of an outcome tends to increase relative differences in the outcome, by necessarily implying that increasing the prevalence of an outcome tends to reduce relative differences in experiencing the outcome, necessarily also implies that reducing the prevalence of an outcome tends to reduce relative differences in the opposite outcome. The statement that as an outcome changes in prevalence the group with the lower baseline rate tends to experience a larger proportionate change in the rate than the other group necessarily means that the other group will tend to experience the larger proportionate change in the opposite outcome, since the other group has the lower baseline rate for the opposite outcome. See October 2015 ASA letter (at 10 n.14). The statement that relative racial differences in some adverse outcome like rejection of a loan application or poor self-rated health tend to be greater, while relative racial differences in the corresponding favorable outcomes tends be smaller, among higher-income than lower-income groups means the same thing as the statement that having high income tends to reduce the adverse outcome proportionately more for whites than blacks while increasing the favorable outcome proportionately more for blacks than whites. In fact, all statements about failure to understand patterns of relative differences are effectively statements about misperceptions regarding subgroup effects. And, of course, the statements made above about higher- and lower-income groups effectively illustrate the fallacy of essentially all perceptions about racial/ethnic or other differences in favorable or adverse outcomes within advantaged subpopulations or the effects of being in an advantaged subpopulation on different racial/ethnic groups.

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Nevertheless, I believe it useful to make various points that are already implied in other points in order (a) to make the points clearer to readers to whom the relationship between the points may not be obvious, (b) to illustrate how commonly the patterns I describe are found in reality, and (c) to illustrate how vast is the waste of resources devoted to study of demographic differences, and the misleading reportage of the results thereof, in consequence of the failure to understand the patterns described in this part.

The discussion that follows contains a number of tabular or graphical illustrations, as do the more extended treatments of this subject listed above. Larger collections of graphical and tabular illustrations, which include many examples from actual studies, may be found in the methods workshops given at American universities between 2012 and 2015,[18] and the conference presentations given in Europe and North American between 2001 and 2011.[19]

Letters to institutions and organizations written since 2009 provide numerous examples of misinterpretations of data by entities believed to have considerable expertise in the analyses of demographic differences and suggest the universality of the unsoundness of such analyses even among organizations and institutions whose missions principally involve the analysis of such differences.[20] Other examples may be found in online comments to medical and health policy

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[18] In addition to the November 2015 UMMS seminar referenced *supra*, see "The Mismeasure of Discrimination," Center for Demographic and Social Analysis, University of California, Irvine (Jan. 20, 2015); "The Mismeasure of Demographic Differences in Outcome Rates" Public Sociology Association of George Mason University (Oct. 18, 2014); "Rethinking the Measurement of Demographic Differences in Outcome Rates," Maryland Population Research Center of the University of Maryland (Oct. 10, 2014); "The Mismeasure of Association: The Unsoundness of the Rate Ratio and Other Measures That Are Affected by the Prevalence of an Outcome," Minnesota Population Center and Division of Epidemiology and Community Health of the School of Public Health of the University of Minnesota (Sept. 5, 2014); "The Mismeasure of Group Differences in the Law and the Social and Medical Sciences," Institute for Quantitative Social Science at Harvard University (Oct. 17, 2012); "The Mismeasure of Group Differences in the Law and the Social and Medical Sciences," Department of Mathematics and Statistics of American University (Sept. 25, 2012).

[19] There were twenty-two such presentations given in eight countries (mainly between 2006 and 2011). Links to them are collected here. Like the methods workshops, many presentations bear much similarity to one another. Some, however, give particular attention to misunderstandings pertinent to a particular country or region, as in the case of the 2006 British Society for Populations Studies paper "The Misinterpretation of Health Inequalities in the United Kingdom" (presentation) and the 5th Nordic Health Promotion Research Conference (2006) presentation "The Misinterpretation of Health Inequalities in Nordic Countries" (abstract), which is discussed in the above-referenced 2014 *Minneapolis Star Tribune* commentary. The 16th Nordic Demographic Symposium (2008) presentation "Measures of Health Inequalities that are Unaffected by the Prevalence of an Outcome" uses illustrations from studies of demographic differences in health and healthcare outcomes pertaining to Finland, where the conference was held. The 2011 International Conference on Health Policy Statistics presentation "Perverse Perceptions of the Impact of Pay for Performance on Healthcare Disparities" (abstract) focuses on misperceptions about the effects of pay-for-performance programs on healthcare disparities, a subject later addressed more fully in "Race and Mortality Revisited" and the FCSM paper and a number of the methods workshops. The 2011 Joint Statistical Meetings presentation "Interpreting Differential Effects in Light of Fundamental Statistical Tendencies" (abstract) focused on perceptions about subgroup effects. Only studies from 2008 on, commencing with the 7th International Conference on Health Policy Statistics presentation "Can We Actually Measure Health Disparities?" (abstract) ,discuss a method for measuring demographic differences unaffected by the prevalence of an outcome.

[20] Recipient of such letters include entities whose activities involves the analyses of demographic differences or the oversight of entities analyzing demographic differences as well as entities who are affected by analyses of

journal since 2005.[21] Further examples of misinterpretations of demographic differences and explanations as to certain nuances of patterns by which measures tend to be affected by the prevalence of an outcome may be found on the pages and subpages of jpscanlan.com devoted to measurement issues.[22]

Many examples may also be found in older articles addressing issues that were then topical or had been for some time.[23] For example, the 1987 *Plain Dealer* article "The 'Feminization of Poverty' is Misunderstood" discusses the failure to recognize that reductions in

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demographic differences by other entities. Recipients include Oklahoma City School District (Sept. 20, 2016), Antioch Unified School District (Sept. 9, 2016), American Statistical Association II (July 25, 2016), Federal Judicial Center (July 7, 2016), University of Oregon Institute on Violence and Destructive Behavior and University of Oregon Law School Center for Dispute Resolution II (July 5, 2016), University of Oregon Institute on Violence and Destructive Behavior and University of Oregon Law School Center for Dispute Resolution (July 3, 2016), New York City Center for Innovation through Data Intelligence (June 6, 2016), Consortium of Social Science Associations (Apr. 6, 2016), Population Association of America and Association of Population Centers (Mar. 29, 2016), Council of Economic Advisers (Mar. 16, 2016), City of Madison, Wisconsin (Mar. 12, 2016), Stanford Center on Poverty and Inequality (Mar. 8, 2016), City of Boulder, Colorado (Mar. 5, 2016), Houston Independent School District (Jan. 5, 2016), Boston Lawyers' Committee for Civil Rights and Economic Justice (Nov. 12, 2015), House Judiciary Committee (Oct. 19, 2015), American Statistical Association (Oct. 8, 2015), Chief Data Scientist of White House OSTP (Sept. 8, 2015), McKinney, Texas Independent School District (Aug. 31, 2015), Department of Health and Human Services and Department of Education (Aug. 24, 2015), Agency for Healthcare Research and Quality (July 1, 2015), City of Minneapolis, Minnesota (June 8, 2015), Texas Appleseed (Apr. 7, 2015), Senate Committee on Health, Education, Labor and Pensions (Mar. 20, 2015), United States Department of Justice and City of Ferguson, Missouri (Mar. 9, 2015), Vermont Senate Committee on Education (Feb. 26, 2015), Portland, Oregon Board of Education (Feb. 25, 2015), Wisconsin Council on Families and Children's Race to Equity Project (Dec. 23, 2014), Financial Markets and Community Investment Program, Government Accountability Office (Sept. 9, 2014), Education Law Center (Aug. 14, 2014), IDEA Data Center (Aug. 11, 2014), Institute of Medicine II (May 28, 2014), Annie E. Casey Foundation (May 13, 2014), Education Trust (April 30, 2014), Investigations and Oversight Subcommittee of House Finance Committee (Dec. 4, 2013), Mailman School of Public Health of Columbia University (May 24, 2013), Senate Committee on Health, Education, Labor and Pensions (Apr. 1, 2013), Federal Reserve Board (March 4, 2013), Harvard University et al. (Oct. 26, 2012), Harvard University (Oct. 9, 2012), United States Department of Justice (Apr. 23, 2012), United States Department of Education (Apr. 18, 2012), The Commonwealth Fund (June 1, 2010), Institute of Medicine (June 1, 2010), National Quality Forum (Oct. 22, 2009), Robert Wood Johnson Foundation (Apr. 8, 2009).

[21] There are approximately 150 such comments, mainly involving interpretations of data on health and healthcare disparities but in some cases (particularly BMJ comments) involving perceptions about subgroup effects. Links to most are available here.

[22] The principal measurement pages are Measuring Health Disparities, Scanlan's Rule, Mortality and Survival, Statistical Reasoning, Immunization Disparities, Educational Disparities, Disparate Impact, Discipline Disparities, Lending Disparities, Employment Discrimination, Feminization of Poverty. The pages have close to 100 subpages. Brief summaries of the pages and most of their subpages may be found on the home page of jpscanlan.com.

[23] In addition to the 2006 *Chance* editorial and 1994 *Chance* article mentioned *supra,* see "Race and Mortality," *Society* (Jan./Feb. 2000) (reprinted in *Current*, Feb. 2000), "Mired in Numbers," *Legal Times* (Oct. 12, 1996), "When Statistics Lie" (*Legal Times*, Jan. 1 1996), "Getting it Straight When Statistics Can Lie," *Legal Times* (June 23, 1993), "Bias Data Can Make the Good Look Bad," *American Banker* (Apr. 27, 1992), "Comment on "McLanahan, Sorensen, and Watson's 'Sex Differences in Poverty, 1950-1980'," *Sign*s (Winter 1991), "An Issue of Numbers," *National Law Journal* (Mar. 5, 1990), "The 'Feminization of Poverty' is Misunderstood," *Plain Dealer* (Nov 11, 1987) (reprinted in *Current, May 1988,* and *Annual Editions: Social Problems 1988/89*, Dushkin 1988).

poverty will tend to increase relative differences between the poverty rates of female-headed families and other units and cause poverty to become more feminized (while increases in poverty will tend to have the opposite effect). The 1990 *National Law Journal* article "An Issue of Numbers," explains that the high proportion blacks comprised of persons disqualified from intercollegiate athletics by National Collegiate Athletic Association academic standards was a function of the leniency rather than the stringency of the standards. The 1993 *Legal Times* article "Getting it Straight When Statistics Can Lie" discusses the failure to recognize that improving the performance of all employees (which had been suggested as a means of reducing large relative racial differences in terminations for inadequate performance) would tend to increase relative racial differences in such terminations or that employers that strive for fairness by providing procedural safeguards against arbitrary termination will tend to show larger relative differences in termination rates than other employers. It also discusses a court of appeals decision premised on the belief that a large relative difference in failure to meet a performance standard was a consequence of the stringency, rather the leniency, of the standard. The 1996 *Legal Times* article "When Statistics Lie" discusses a putative class action based on a study that ranked lenders according to the size of relative racial difference in mortgage rejection rates without recognizing that more lenient lending criteria tended to be associated with larger relative differences in rejection rates. The 1996 *Legal Times* article "Mired in Numbers" explains why relaxing a three-strikes law will tend to increase the proportion blacks make up of persons affected by the law. The 1991 *Public Interest* article "The Perils of Provocative Statistics" and the 2000 *Society* article "Race and Mortality" provide a wide range of examples.[24] The failures of understanding reflected in these examples are just as pervasive today as they were when the articles were published.

A. Relative Differences in Rates of Experiencing Favorable and Adverse Outcomes

The section discusses the pattern whereby the rarer an outcome the greater tends to be the relative difference between rates at which advantaged and disadvantaged groups experience the outcome and the smaller tends to be the relative difference between rates at which such groups avoid the outcome (i.e., experience the opposite outcome).[25] It also discusses some of the implications of the failure to understand the pattern in analyses of demographic differences.

Discussion of patterns by which absolute differences tend to affected by the prevalence of an outcome will be largely deferred to the next section. But it would be useful for readers to understand at this point that all cases where a relative difference between rates at which two groups experience an outcome changes in a different direction from the absolute difference between those rates involve situations (a) where the relative difference between rates of

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[24] References to medical and health policy journal articles underlying many of the statements about health outcomes in "Race and Mortality," and tables based on data from those articles, may be found in my unpublished paper "The Relationship Between Declining Mortality and Increasing Racial and Socioeconomic Disparities in Mortality" (1992).

[25] A more precise description of the pattern would state, rather than "the rarer an outcome," "the more the outcome is restricted toward either end of the overall distribution." But I have characterized the pattern in the manner done in the text above for some time and those discussing it have not been confused by the usage. Thus, I am not at this time inclined to depart from the usage in the text.

experiencing the opposite outcome has changed in the opposite direction of the relative differences between rates of experiencing the first outcome and (b) where the relative difference between rates of experiencing the increasing outcome has decreased while the relative difference between rates of experiencing the decreasing outcome has increased.[26] The same holds for situations where the relative difference is larger in one setting while the absolute difference is larger in the other setting.[27] That is, the relative difference for one outcome will be larger in the setting where that outcome is less common while the relative difference for the opposite outcome will be larger in the other setting (which is the setting where the opposite outcome is less common). Thus, all situations where attention has recently been given to the fact that a relative difference and absolute difference show different patterns as to the comparative size of some disparity involve situations where the relative difference in rates of experiencing an outcome is larger, while the relative difference in avoiding the outcome is smaller, where the outcome is less common.

Tables 1 and 2 illustrate the pattern whereby the rarer an outcome the greater tend to be the relative differences in experiencing it and the smaller tends to be the relative differences in avoiding it by means of test score and income data. The tables will show how lowering a test cutoff will tend to increase relative differences in pass rates while reducing relative differences in pass rates and how reducing poverty tends to increase relative differences in poverty rates while reducing relative differences in rates of avoiding poverty. But the patterns that will be shown in the tables may be found in virtually any data showing the proportions of two groups that fall

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[26] I have often noted (usually in discussions of perceptions about value judgments involved in choosing to appraise a demographic disparity in terms or the relative difference the observer happens to be examining or the absolute difference) that anytime it is mentioned that a relative difference and the absolute difference have changed in opposite directions, the unmentioned relative difference will necessarily have changed in the opposite direction of the mentioned relative difference and the same direction as the absolute difference. See, *e.g.*, "Race and Mortality Revisited" (at 335) and "The Mismeasure of Health Disparities" (at 415). But, at least partly because I think many readers would regard the point to be obvious, I have not often explained why that is so. My Comment on Boscoe BMJ 2015 (2016) provides a rather inefficient explanation. The point may be somewhat more efficiently explained in the following paragraph.

  In order for a relative difference and the absolute difference for an outcome to change in opposite directions, the rates for both groups must change in the same direction, and the group with the lower baseline rate must experience the larger relative change while the other group experiences the larger absolute change. Any other scenario would cause the relative difference and the absolute difference to change in the same direction. That includes the scenario in which the group with the lower baseline rate experiences the larger absolute change, which necessarily means that it also experiences the larger relative change and that therefore the relative and absolute difference will change in the same direction. The fact that the group with the higher baseline rate for the outcome experiences the larger absolute change in the outcome means that it also experiences the larger absolute change in the opposite outcome. Since that group has the lower baseline rate for the opposite outcome, the fact that it experiences the larger absolute change in the opposite outcome means that it also experiences the larger relative change in the opposite outcome.   Thus, the absolute difference and the relative difference for that outcome must change in the same direction.

[27] I sometimes use the phrase "differentiated other than temporally" to refer to comparisons of settings that do not involve changes over time (i.e., comparisons of one place or subpopulation with another or one condition with another). But all involve the same statistical phenomenon. And regardless of the nature of the situations being compared, the extent to which the described patterns are observed will principally turn on the degree to which the sizes of difference between the forces causing outcome rates of advantaged and disadvantaged to differ varies in the two situations and the degree to which the prevalence of the outcome varies in the two situations.

below or above various points on a continuum of a quantifiable factor associated with experiencing some favorable outcome and the corresponding adverse outcome or simply showing the proportions of different groups that fall into various categories reflecting quantification of a factor.

For example, income data on which Table 2 is based show how lowering an income requirement to receive some favorable outcome will tend to increase relative difference in rates of failure to meet the requirement while reducing relative differences in rates of meeting the requirement.[28] Credit score data show the same thing with respect to a credit score requirement.[29] National Health and Nutrition Survey data show how generally reducing systolic blood pressure tends to increase relative racial differences in hypertension while reducing relative racial differences in rates of avoiding hypertension or that generally improving folate levels will tend to increase relative racial differences in low folate while reducing relative racial differences in rates of adequate folate.[30] Even data on rates at which groups fall into categories of health literacy show that the lower the category, the greater the relative difference in failing to achieve it and the smaller the relative difference in achieving it.[31] Data on rates at which groups meet certain proficiency levels will show the same thing.[32] And life tables show that the lower the age (and hence the lower are the rates of failing to survive to it) the larger tends to be the relative difference in failing to survive to the age while the smaller tends to be the relative difference in surviving to the age.[33]

As mortality declines relative difference in mortality tend to increase while relative differences in survival tend to decrease. As healthcare improves relative differences in receipt of appropriate care tend to decrease while relative differences in non-receipt of such care tend to increase. Generally decreasing any adverse outcomes like mortgage rejection, mortgage foreclosure, suspension or expulsion from school, dropping out of school, arrests, low birth weight tends to increase relative differences in rates of experiencing the outcome while reducing relative differences in avoiding it.

Similarly, relative racial and other relative differences in adverse outcomes tend to be larger, while relative racial differences in the corresponding favorable outcomes tend to be smaller, among advantaged populations/subpopulations/settings with comparatively low adverse

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[28] See Table of the 2006 Chance editorial.

[29] See the Credit Score Illustrations subpage of the Scanlan's Rule page of jpscanlan.com.

[30] See the NHANES Illustrations subpage of the Scanlan's Rule page

[31] See the Numeracy Illustration subpage of the Scanlan's Rule page

[32] Rate of achieving a certain level of some sort of proficiency (including anything below it) should not be confused with rates of falling into a certain proficiency category. Rates at which certain groups fall into any intermediate category of an outcome – like rates at which different groups of students receive the grade of C – can never be effectively analyzed. See the Intermediate Outcomes subpage of the Scanlan's Rule page of jpscanlan.com.

[33] See the Life Tables Illustrations subpage of the Scanlan's Rule page and the

outcome rates (*e.g.*, the young, persons receiving better healthcare like the insured and the military, the well-educated, persons with higher income, generally higher socioeconomic groups, states like Minnesota and Massachusetts) than among populations/subpopulations/settings with comparatively high adverse outcome rates.

For example, relative racial differences in infant mortality and low birth weight tend to be larger, while relative racial difference in infant survival and normal birth weight tend to be smaller among the well-educated and other low risk groups (where such outcomes are comparatively uncommon) than among high risk groups.[34] Relative racial differences in rates of mortgage rejection, mortgage foreclosure, and poor self-rated health tend to be greater, while relative racial differences in rates for the corresponding favorable outcomes tend to be smaller, among higher-income than among lower-income groups.[35] Relative racial differences in adverse discipline outcomes tend to be larger, while relative differences in the avoidance of such outcomes tend to be smaller, in settings where suspensions are less common (*e.g.*, schools without zero tolerance policies, suburban schools, states like Massachusetts with generally low suspension rates, pre-school) than in the corresponding settings where suspensions are more common.[36] Similarly, relative racial differences in adverse discipline outcomes tend to be larger, while relative racial differences in avoiding those outcomes tend to be smaller, among girls than among boys; correspondingly, relative gender differences in adverse discipline outcomes tend to be larger, while relative gender differences in avoiding those outcomes tend to be smaller, among whites than blacks.[37]

With only minor exception, the above patterns are utterly unknown in the law and the social and medical sciences. In fact, particularly with regard to infant and cancer outcomes, researchers will often refer to survival and mortality interchangeably, often stating they are examining relative differences in the former while in fact examining relative differences in the latter. They do so without recognizing the possibility, much less the likelihood, that the two relative differences will provide opposite results as to whether some demographic disparity is increasing or decreasing over time or is larger in one setting than another or with regard to one condition than another. See the Mortality and Survival page of jpscanlan.com.

And a large part of those communities expect the exact opposite of the above patterns. That is, a large part of the community expects that general reductions in an adverse outcome should reduce relative demographic differences in rates of experiencing the outcome and that relative racial/ethnic difference in adverse outcomes will tend to be smaller within advantaged

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[34] See "Race and Mortality" and the unpublished paper "The Relationship Between Declining Mortality and Increasing Racial and Socioeconomic Disparities in Mortality."

[35] See the Disparities – High Income and Foreclosure Disparities subpage of the Lending Disparities page of jpscanlan.com and Figure 5 (slide 66) of the UMMS seminar.

[36] See the Suburban Disparities, DOE Equity Report, and the Preschool Disparities subpages of the Discipline Disparities page; letter to Boston Lawyers' Committee for Civil Rights and Economic Justice (Nov. 12, 2015); Table 8 of "Race and Mortality Revisited" (at 342).

[37] See Tables 1 and 2 of the Discipline Disparities page.

than disadvantaged subpopulations or settings.   See especially "Race and Mortality Revisited," *Society* (July/Aug. 2014) and "Race and Mortality," *Society* (Jan./Feb. 2000).

That, of course, is the precise issue addressed in the shorter items discussed in the Introduction, which involve the longstanding belief of the government that reducing adverse lending, school discipline, criminal justice, and employment outcomes will tend to reduce relative racial/ethnic and other demographic differences in rates of experiencing those outcomes. But the belief persists because it is shared by a larger proportion of the scientific community, possibly close to all it. And the belief exists within the scientific community with regard to every type of adverse outcome.

There are two corollaries to the above-described pattern by which relative differences tend to be affected by the prevalence of an outcome.[38] One corollary is best described in the following terms with reference to a universe comprised of two groups: reducing the frequency of an outcome tends cause the group more susceptible to an outcome to make up a larger proportion of persons experiencing the outcome, and a larger proportion of persons failing to experience, than it previously did. For example, reducing poverty will tend to cause more poorer groups to make up both a larger proportion of the poor and of the non-poor, as shown, for example, in Table 1 of the 2006 Chance editorial (which underlies Table 2 below). Reducing public school suspensions and adverse criminal justice outcomes will tend to increase the proportion racial minorities and other disadvantaged groups make up of persons experiencing those outcome (as well as increase the proportions such groups make up of persons failing to experience such outcomes).[39]

The appraisal of demographic disparities based on differences between the proportion a group comprises of persons experiencing an outcome and the proportion it comprises of persons actually experiencing the outcome is especially common in recent discussions of school discipline and criminal justice outcomes. Almost universally discussions of such differences reflect an expectation that reducing the frequency of adverse outcomes will tend to decrease the proportion disadvantaged groups make up of persons experiencing those outcomes. In addition to the 2016 items in *The Hill* and the *Federalist Society Blog* mentioned in the Introduction, see the letters to Oklahoma City School District (Sept. 20, 2016), Antioch Unified School District (Sept. 9, 2016), American Statistical Association II (July 25, 2016), City of Boulder, Colorado

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[38] I sometimes refer to these corollaries as manifestations of the pattern rather than corollaries. I have also varied the order in which I present them. Compare the October 2015 ASA letter (at 9-10) with the UMMS seminar (slides 72-80).

[39] The pattern whereby reducing the frequency of an adverse outcome tends to increase the proportions disadvantaged groups make up of persons experiencing it and failing to experience it could just as well be termed the cause of the pattern of relative differences. For it is the fact that the disadvantaged group tends to comprise up a larger proportion of persons below and above each increasingly lower point on a continuum of a quantifiable factor associated with the likelihood of experiencing the favorable outcome that underlies the described pattern of relative differences. See Table 1 of the 2006 *Chance* editorial.   My earliest treatments of this subject principally addressed perceptions about disproportionate representations of certain groups among persons experiencing an adverse outcome. See "The 'Feminization of Poverty' is Misunderstood," *Plain Dealer* (Nov 11, 1987); "An Issue of Numbers," *National Law Journal* (Mar. 5, 1990) and "The Perils of Provocative Statistics," *Public Interest* (Winter 1991).

(Mar. 5, 2016), Houston Independent School District (Jan. 5, 2016), McKinney, Texas Independent School District (Aug. 31, 2015), Department of Health and Human Services and Department of Education (Aug. 24, 2015), City of Minneapolis, Minnesota (June 8, 2015), Texas Appleseed (Apr. 7, 2015), and United States Department of Justice and City of Ferguson, Missouri (Mar. 9, 2015). As explained above, that expectation is the exact opposite of reality. The fact that, even apart from the implications of the patterns described here, it is impossible to soundly analyze demographic differences on the basis of a comparison of the proportion a group comprises of persons potentially experiencing an outcome and the proportion it comprises of persons actually experiencing the outcome, is discussed in Section C *infra*.

A second corollary to the described pattern of relative differences is that as an outcome changes in prevalence, including when a factor or intervention causes an outcome rate to change, the group with the lower baseline rate for the outcome will tend to experience a larger proportionate change in the outcome than the other group while the other group will tend to experience a larger proportionate change in the opposite outcome. As discussed previously, the fact that relative difference in mortgage rejection rates (or poor self-rated health) tend to be larger, while relative racial differences in mortgage approval rates (or good self-rated health) tend to be smaller, among higher-income groups than lower-income groups may also be regarded as reflecting the fact that having high income tends to causes a larger proportionate reduction in mortgage rejection rates (or rates of poor self-rated health) among whites than blacks while causing a larger proportionate increase in mortgage approval rates (or rates of good self-rated health) among blacks than whites. Every analysis of subgroup effects based on the comparative size of a relative effect (which is to say almost every analysis of subgroup effects/interaction) has been fundamentally unsound as a result of the failure to understand this pattern.   See "Race and Mortality Revisited" at 339-341. The fact that, irrespective of the patterns described here, it is illogical to identify a subgroup effect on the basis of differing proportionate effects on different baseline rates is discussed in Section D *infra.*

As with the described pattern of relative differences, because other factors are also influencing observed patterns, the two corollaries will not always be observed. But in all situations where the described pattern of relative differences is observed, the corollaries will necessarily be observed as well.

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The pattern whereby the rarer an outcome the greater tends to be the relative difference in experiencing it and smaller tends to be the relative difference in avoiding it, as well as its two corollaries, can be easily illustrated with normally distributed test score data. Table 1 below, which is a version of Table 1 of "Race and Mortality Revisited" (at 329) and which reflects the same hypothetical employed in the shorter articles listed in the Introduction, is based on a situation where the means of normal test score distributions of an advantaged group (AG) and a disadvantaged group (DG) differ by half a standard deviation and both distributions have the same standard deviation. In addition to showing the pass and fail rates of each group, the table shows the ratio of AG's pass rate to DG's pass rate and the ratio of DG's fail rate to AG's fail

rate at each cutoff (the third and fourth last columns).[40]   Based on a situation where AG and DG each make up half of the test takers, the final two columns show the proportion DG makes up of persons who pass and persons who fail at each cutoff.

Table 1. Illustration of effects on relative differences in pass and fail rates of lowering a cutoff from a point where 80% of AG passes to a point where 95% of AG passes, with proportions DG comprises of persons who pass and of persons who fail (when mean scores differ by approximately half a standard deviation and DG comprises 50% of test takers)

Cutoff	AG Pass	DG Pass	AG Fail	DG Fail	AG/DG Pass Ratio	DG/AG Fail Ratio	DG Prop of Pass	DG Prop of Fail
High	80%	63%	20%	37%	1.27	1.85	44%	65%
Low	95%	87%	5%	13%	1.09	2.60	48%	72%

According to the specifications underlying the table, at the cutoff where 80% of AG passes the test, approximately 63% of DG would pass the test (with corresponding failure rates of 20% for AG and 37% for DG). The ratio of AG's pass rate to DG's pass rate would be 1.27 while the ratio of DG's fail rate to AG's fail rate would be 1.85.

When the cutoff is lowered to the point where the pass rate for AG is 95%, the pass rate for DG would be approximately 87% (with corresponding failure rates of 5% for AG and 13% for DG). The ratio of AG's pass rate to DG's pass rate would thus decrease to 1.09 (from 1.27), while the ratio of DG's fail rate to AG's fail rate would increase to 2.60 (from 1.85). That is, the relative difference in the outcome that is reduced in frequency (test failure) increases (from 85% to 160%), while the relative difference in the increasing outcome (test passage) declines (from 27% to 9%).[41]

The final two columns also illustrate the first corollary to the described pattern by which relative differences tend to be affected by the prevalence of an outcome. Lowering the cutoff and reducing the frequency of test failure caused an increase in the proportion DG makes up of those who pass the test (from 48% to 52%) and the proportion DG makes up of persons who fail the test (from 65% to 72%). Because the proportion DG makes up of persons taking the test is

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[40] While I commonly refer to patterns of relative differences in these comments, the table actually presents rate ratios. The relative difference is the rate ratio minus 1 where the rate ratio is above 1 and 1 minus the rate ratio where the rate ratio is below one. In the former case, the larger the rate ratio, the larger the relative difference; in the latter case, the smaller the rate ratio, the larger the relative difference.   One should be careful not to mistakenly refer to the rate ratio as the relative difference. But the distinction between the two terms is not pertinent to the discussion here of patterns by which the two relative differences tend to be affected by the prevalence of an outcome. In recent years I commonly present the rate ratios for both outcomes with the larger figure in the numerator, in which case, as to both outcomes, the larger the rate ratio, the larger the relative difference. In the 1994 *Chance* article and the 2006 *Chance* editorial I used the disadvantaged group's rate as the numerator in both ratios (which is the approach of the "four-fifths" or "80 percent" rule for identifying disparate impact under the Uniform Guideline for Employee Selection Procedures). Choice of numerator in the ratio, however, has no bearing on the patterns by which the two relative differences tend to be affected by the prevalence of the outcome.

[41] I commonly speak of the decreasing outcome first because failures of understanding typically involve that outcome. But, partly out of convention and partly to be consistent with certain earlier illustrations, Table 1 presents the increasing outcome first and discusses that outcome first save in the sentence to which this note is attached.

unaffected by the cutoff, lowering the cutoff would increase all measures of differences between the proportion DG makes up of test takers and the proportion it makes up of persons who fail (while reducing all measures of difference between the proportion DG makes up of test takers and the proportion it makes up of persons who pass).

The table also illustrates the second corollary to the described pattern by which relative differences tend to be affected by the prevalence of an outcome. Lowering the cutoff caused a larger proportionate decline in failure rates for AG (the group with the lower baseline failure rate) while causing a larger proportionate increase in the pass rate for DG (the group with the lower baseline pass rate). That is, lowering the cutoff caused failure rates to decrease by 75% for AG but only 65% for DG, while causing pass rates to increase by 38% for DG but only 19% for AG. Raising the cutoff back to the original point would similarly show a larger proportionate increase in the failure rate for AG but a larger proportionate decrease in the pass rate for DG, thus causing the relative difference in failure rates to decrease and the relative difference in pass rates to increase.

Table 1 can also illustrate the pattern whereby relative differences in the adverse outcome tend to be larger, while relative differences in the corresponding favorable outcome tend to be smaller, in advantaged populations/subpopulations/settings than in disadvantaged populations/subpopulations/settings. The reader need simply regard the second row as reflecting the situation in the advantaged population/subpopulation/setting (where the adverse outcome is less common) and the first row as reflecting the situation in the disadvantaged population/subpopulation/setting (where the adverse outcome is more common). In terms of the point of the preceding paragraph, this means that being in the advantaged population/subpopulations/setting tends to reduce adverse outcome rates proportionately more for advantaged groups than disadvantaged groups while increasing favorable outcome rates proportionately more for disadvantaged groups than advantaged groups. To make the last point more concrete, having high income or high education tends to reduce adverse outcome rates proportionately more for whites than disadvantaged racial minorities, while increasing favorable outcome rates proportionately more for disadvantaged racial minorities than whites.

The pattern of relative differences in pass and fail rates shown in Table 1 exists across the full range of test scores. Figure 1, which employs the same specifications as Table 1, shows the effects on the two relative differences of lowering a cutoff from a point where almost everyone fails to a point where almost every passes. The relative difference in the decreasing outcome (test failure) consistently increases, while the relative difference in the increasing outcome (test passage) consistently decreases.

Figure 1. Ratios of (1) DG Fail Rate to AG Fail Rate, (2) AG Pass Rate to DG Pass Rate, at Cutoffs Defined by AG Failure Rates

Cutoff Defined by AG Fail Rate
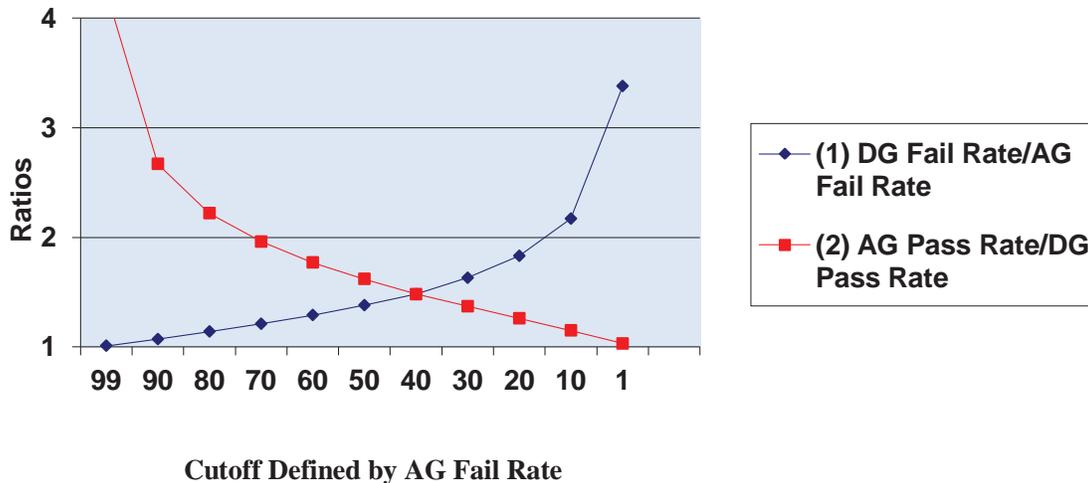
The two corollaries to the above pattern will similarly be observed across the full range of prevalence of the outcome.

Table 2, which is an abbreviated version of Table 2 or "Race and Mortality Revisited" and Table 1 of the 2006 *Chance* editorial, shows proportions of the white and black populations living on income below and above the poverty line and 75% of the poverty line, along with the ratios of the black to white ratios of falling below each point and the white to black ratios of falling above the point. The table also includes the percentage point difference between rates, though I will make only limited reference to it in this section.

Table 2. Rates at which white and blacks fall above and below 125%, 100%, and 75% of the poverty line, with measures of differences between rates (2004)

Percent of Poverty Line	Percent of Whites Below	Percent of Blacks Below	Percent of Whites Above	Percent of Blacks Above	B/W Below Ratio	W/B Above Ratio	Percentage Point Diff
100%	10.8%	24.7%	89.2%	75.3%	2.29	1.18	14
75%	7.2%	17.8%	92.8%	82.2%	2.48	1.13	11

Movement from the first to the second row shows the implications of reducing poverty such as to enable everyone living on incomes above 75% of the poverty line to escape poverty. The black-white poverty ratio would increase from 2.29 to 2.48 (i.e., the relative difference would increase from 129% to 148%), while the ratio of the white rate of avoiding poverty to the black rates of avoiding poverty would decline from 1.18 to 1.13 (i.e., relative difference would decreases from 18% to 13%). And the absolute difference would decline from 14 to 11 percentage points.

As shown in Table 2 of "Race and Mortality Revisited" and Table 1 of 2006 *Chance* editorial, one would observe the opposite patterns of changes in measures if poverty were to increase such as to pull into poverty all persons living on incomes below 125% of the poverty line. Such pattern may also be observed in Table 2 above if one simply envisions that after the initial reduction in poverty simulated by the movement from the first to the second row of the table, poverty rose to its prior level.

The table does not present the proportion blacks make up of the combined black and white population below and above each point. Such information may be found in Table 1 of the 2006 *Chance* editorial. But, as explained with regard to test score illustration in Table 1 above, given the data in Table 2 above, the proportions blacks comprise of the combined black and white populations falling both below and above 75% of the poverty line would necessarily be greater than the proportions falling below and above the poverty line itself. As discussed in note 39, the fact that such is the case may be deemed the reason for the patterns of relative differences shown in the table.

In "Race and Mortality Revisited" I discuss with regard to its Table 2 whether there could be justification for devoting any resources to exploring why, during a period when there occurred a general increase or decrease in poverty, the relative difference between black and white poverty rates or rates of avoiding poverty changed – say, for example, to attempt to determine whether a particular administration's civil rights enforcement policies may have played some role – without consideration of the patterns in Table 2. The obvious answer is that there could be no justification.

The same point holds with regard to any exploration of reasons observed patterns of differences in the proportionate changes in the black and white poverty rates or rates of avoiding poverty, as might commonly be done in discussions that one group or another was disproportionately affected by the general change in poverty. The point also holds with regard to exploration of reasons for changes in the proportion blacks comprise of the poor or of the non-poor.   And it would hold as well with regard to explorations of reasons for observed pattern of changes in absolute differences between poverty rates.

With regard to the potential focus on differences in the relative (or absolute) change in each group's rate in the case of a decline (or increase) in poverty or anything else, the following should be borne in mind. Given the manner in which demographic differences are commonly analyzed, in the case of the reduction in poverty simulated by the movement from the first to the second row of Table 2, it would not be surprising (a) for researchers exploring the cause of the increase in the relative difference in poverty rates to attribute the increase to the fact that the white poverty rate fell proportionately more than the black poverty rate or (b) for researchers exploring the cause of the decrease in the absolute difference to attribute the decrease to the fact that the black poverty rate fell by a greater absolute amount than the white rate. That in fact is what is done in the discussion of increasing relative socioeconomic differences, but declining absolute socioeconomic differences, in mortality in the BMJ article[42] that is the subject of my Comment on Mackenbach BMJ 2016 (2016).

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[42] Mackenbach JP, Kulhánová I, Artnik B, et al. Changes in mortality inequalities over two decades: register based study of European countries. BMJ 2016;353:i1732.

Some observers might regard such information as providing insight into causes of increasing or decreasing disparities. But as with discussion of the changes in the size of the disparities themselves, such discussion is providing nothing about whether the observed pattern is anything other than the consequence of the change in the prevalence of the outcome. That is, such discussion merely describes a mathematical relationship; it provides no information about whether the differences in the circumstances of the groups have actually changed or about the role of policies in effecting changes in the difference in the circumstances of the groups.

As suggested above, however, research examining patterns of changes in demographic differences in poverty or any other matter has never taken patterns like those in reflected in Table 2 into account. Thus, it has not attempted (that is, attempted in a sound manner)to identify things that it might be actually be useful for policymakers to know.

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In the main Introduction to these comments and the introduction to this part, I mentioned that the National Center for Health Statistics (NCHS) came to understand more than a decade ago that determinations of whether health and healthcare disparities were increasing would commonly turn on whether one examined relative differences in a favorable outcome or relative differences in the corresponding adverse outcome. This occurred as a result of my bringing to the attention of the NCHS statisticians in 2002 "Race and Mortality," *Society* (Jan./Feb. 2000) and "Divining Difference," *Chance* (Fall 1994). This was not, however, the agency's first recognition of the pattern. As discussed at the end of "Race and Mortality" the director of the agency had come to recognize the pattern several years earlier, which had occurred as a result of my contacts to the directors of the Race and Health Initiative.[43] But as of 2002 the information had not found its way to the NCHS statisticians who developed policy on the measurement of health disparities.

In any case, the communications directly to NCHS statisticians led their publishing four official or unofficial papers between 2004 and 2009 discussing that determination of directions of change in health and healthcare disparities would commonly turn on which relative difference one examined. The most important of these was a 2005 monograph titled "Methodological Issues in Measuring Health Disparities" (authored by NCHS personnel and other experienced health disparities researchers).[44] Each of the documents simply concluded that in order to

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[43] See the January 20, 1999 letter from NCHS Director Edward J. Sondik. See also my January 25, 1999 letter to Director Sondik explaining that the absolute difference between rates did not provide a solution to the problem of the contradictions in interpretations provided by the two relative differences because the absolute difference tended also to be affected by the prevalence of an outcome.

[44] Keppel K, Pamuk E, Lynch J, et al. Methodological issues in measuring health disparities. Vital Health Stat. 2005;2(141):116. Other papers include: (a) Keppel KG, Pearcy JN, Klein RJ. 2004. Measuring progress in Healthy People 2010. Healthy People statistical notes. No. 25. Hyattsville, Md.: National Center for Health Statistics; (b) Keppel KG, Pearcy JN. 2005. Measuring relative disparities in terms of adverse events. *J Public Health Manag Pract*, 11(6):479–483; and (c) Keppel KG, Pearcy JN. 2009, Healthy People 2010: Measuring disparities in health.

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promote consistency, for purposes of measuring health disparities reduction goals in Healthy People 2010, both health and healthcare disparities would be measured in terms of relative differences in adverse outcomes (meaning, in the case of healthcare, relative differences in non-receipt of care).

I have in many places criticized the NCHS manner of dealing with this issues (both as to health and healthcare) for the failure to recognize that the purpose of health and healthcare disparities research is to understand processes and inform policies, which cannot be achieved by arbitrarily choosing a measure that tends to indicate that disparities are increasing over one that tends to indicate that they are decreasing (or vice-versa). As indicated above, that purpose can only be achieved by taking into account the ways the measures employed in such research tend to be affected by the prevalence of an outcome.

Some implications of the NCHS approach are discussed in "Race and Mortality Revisited" and the FCSM paper, especially with regard to (a) a 2008 study where, ignoring or unaware of NCHS guidance, the authors measured disparities in terms of relative difference in receipt of immunization and found a dramatic increase in immunization rates to be associated with dramatically reduced racial/ethnic disparities (while NCHS, relying on relative differences in non-receipt of immunization, would have reached opposite conclusions) and (b) a 2009 study where, specifically relying on NCHS guidance, the authors measured disparities in terms of relative differences in non-receipt of mammography and found dramatic increases in mammography rates to be associated with dramatic increases in area socioeconomic disparities (while those relying on relative differences in receipt of mammography would have reached opposite conclusions). See discussion of Table 4 in ""Race and Mortality Revisited" and Tables 3 and 7 in the FCSM paper. The two papers discuss a number of similar situations where analyses of changes in healthcare disparities would reach opposite results depending on whether researchers followed or ignored (usually meaning were unaware of) NCHS guidance, as well as a situation where NCHS's views as to the largest and smallest disparities in skilled birth attendance in certain low and middle income countries would be the opposite of the views of the World Health Organization. See Table 4 of the FCSM paper.

As discussed in the 2016 JPHMP commentary, however, the NCHS has now reversed its position regarding the measurement of healthcare disparities and now measures them in terms of relative differences in favorable outcomes. Thus, NCHS would now agree with the authors of the 2008 immunization study who ignored the earlier guidance and disagree with the authors of the 2009 mammography study who specifically followed NCHS guidance. Reversals of interpretation would apply to all situations discussed in "Race and Mortality Revisited" and the FCSM paper regarding healthcare disparities interpretation issues as to which the position taken in the 2005 NCHS monograph is pertinent.

Another illustration of the implications of the NCHS reversal of position with regard to researchers who relied on the guidance may be found at pages 5-6 of the March 8, 2016 letter to Stanford Center on Poverty and Inequality regarding a *Poverty and Inequality Report* titled

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Chance, 22(1):6-9. See also Keppel K.G., Pearcy J.N. 2006. Response to Scanlan concerning: measuring health disparities in terms of adverse events. *J Public Health Manag Pract,* 12(3):295.

"State of the Union" that the Center issued in early 2016. The letter discusses the way that authors of a portion of the report relied on NCHS guidance to measure demographic differences in insurance coverage in terms of relative difference in uninsurance and drew inferences about underlying processes based on the comparative size of those differences in different settings. Prior to issuance of the report, NCHS had already reversed its position such that (though the data were unavailable to confirm the pattern) observers relying on the revised guidance would commonly draw very different inferences about processes from those drawn by authors of the Stanford Center's report.

The most notable consequence of the NCHS reversal, however, is that it constitutes a repudiation of more than a decade of yearly National Healthcare Disparities Reports issued by the Agency for Healthcare Research and Quality (AHRQ). Following NCHS guidance, the report had relied on the guidance to measure healthcare disparities in terms of relative differences in non-receipt of care.   This issue and whether AHRQ is yet aware of the reversal or its implications is discussed further in Section B.

While a Google search indicates that the 2005 NCHS monograph has been cited 180 times, to my knowledge, none of the papers citing it or citing other items in which NCHS has recommended measuring healthcare disparities in terms of relative differences in adverse outcomes (excluding situations where I have cited them) has indicated an awareness that reliance on relative differences in adverse outcomes will commonly result in opposite conclusions from reliance on relative differences in the corresponding favorable outcomes.[45] Other federal agencies involved with health and healthcare disparities research have yet to show an awareness that it is even possible for the two relative differences to yield opposite conclusions about patterns of changes in health and healthcare disparities. In consequence of the retirement of the principal NCHS author of the 2005 monograph, it is questionable whether more than a few persons at NCHS are aware that NCHS statisticians ever reached the conclusion they did in the monograph and the three other papers.

Most important, neither NCHS nor any other agency conducting research into health and healthcare disparities, providing guidance on such research, or funding such research has considered the implications of the prevalence of an outcome on measures employed in such research. The same holds for the private sector.

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As discussed in the August 24, 2015 letter to the Department of Health and Human Services (HHS) and Department of Education (DOE), the Secretary of HHS has a view as to the effects or reducing adverse outcomes on relative differences in rates of experiencing those outcomes that is both the opposite of the view NCHS reached a decade ago and the opposite of

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[45] See pages 26-27 of the FCSM paper regarding Healthy People 2010 guidance on measurement of healthcare disparities indicating that healthcare disparities will be discussed in terms of favorable outcome even though they are being measured in terms of relative differences in adverse outcomes and the fact that few readers would infer from the language that the relative difference in the adverse outcome may well be yielding an opposite conclusion from the relative difference in the favorable outcome. See also the slide 32 of the presentation associated with the FCSM paper.

reality. Specifically, the Secretary of HHS, like the Secretary of Education, believes that reducing the reducing public school suspensions will tend to reduce demographic differences in discipline rates and the proportions disadvantaged groups make up of persons experiencing those outcomes.

The reasons that such actions will tend to have the opposite effect have been explained above. In addition, in point of fact, recent reductions in discipline rates have consistently been accompanied by increased relative differences in discipline rates (and thus the proportion more susceptible groups make up of those disciplined) notwithstanding that teachers and administrators are no doubt taking various actions that would be expected to reduce all measures of differences between outcome rates. See the subpages to the subpages of the Discipline Disparities page of jpscanlan.com discussing the situation with regard to the jurisdictions indicated in the title of the subpage: California Disparities, Colorado Disparities, Connecticut Disparities, Maryland Disparities, Minnesota Disparities, Oregon Disparities. Beaverton, OR Disparities, Denver Disparities, Henrico County, VA Disparities, Los Angeles SWPBS, Minneapolis Disparities, Montgomery County, MD Disparities, Portland, OR Disparities, St. Paul Disparities.[46]   See also the DOE Equity Report subpage regarding a Department of Education report showing that relative racial differences in expulsions are larger in school districts without zero tolerance policies than school districts with such policies; the Suburban Disparities subpage regarding the greater relative racial differences in suspensions in suburban than central city schools; "Race and Mortality Revisited" (at 342) regarding the larger relative differences in suspension rates in pre-school than in K-12; and the Boston Lawyers' Committee letter mentioned in note 6 regarding larger relative differences in suspensions in Massachusetts (which has generally low suspension rates) than nationally.

Some of the problems faced by particular entities as a result of the mistaken belief of the government or others that reducing the prevalence of adverse discipline outcomes will tend to reduce relative differences in rates of experiencing the outcomes, and the proportions disadvantaged groups make up of persons experiencing the outcomes, are discussed in the Oakland Agreement page and the letters to school districts listed on pages 18-19. See especially the letters to Oklahoma City School District (Sept. 20, 2016) regarding a recent agreement with the Department of Justice, the Antioch Unified School District (Sept. 9, 2016) regarding a recent suit brought against that district by a public interest group, and McKinney, Texas Independent School District (Aug. 31, 2015) regarding a public interest group's analyses of racial/ethnic differences in the district.

Similar problems faced by particular entities as a result of the government's beliefs about the effect of generally reducing criminal justice outcomes on measures of racial disparity may be found in the letters to cities listed on pages 18-19. The particular problems facing Ferguson, Missouri are discussed in the letter to United States Department of Justice and City of Ferguson,

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[46]   Reportage of situations where general reductions in discipline rates have been accompanied by reduced racial differences in discipline have generally pertained to studies that measured disparities in terms of absolute differences between rates. As discussed in the letter to the Antioch Unified School District, absolute differences between rates tend to decline when outcomes in the rate ranges commonly observed for adverse school discipline outcomes generally decline.

Missouri (Mar. 9, 2015) and in the "Things DoJ doesn't know about racial disparities in Ferguson," *The Hill* (Feb. 22, 2016). See also my Submission re Ferguson Consent Decree (Apr. 11, 2016) regarding specific issues in the consent decree resolving the Department of Justice's suit against the city. The recent "Misunderstanding of Statistics Confounds Analyses of Criminal Justice Issues in Baltimore and Voter ID Issues in Texas and North Carolina," *Federalist Society Blog* (Oct. 3, 2016) gives an indication of similar problems facing Baltimore, Maryland.

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A few concluding points are in order regarding the two relative differences. Congress has no better an understanding of these issues than the federal law enforcement agencies or the federal agencies involved with health and healthcare disparities research. In fact, as discussed in "Race and Mortality Revisited" (at 342) and the Disabilities – Public Law 104-446 subpage of the Discipline Disparities page, the Individuals with Disabilities Education Act mandates that recipients of federal assistance with "significant discrepancies" in long-term suspensions of students with and without disabilities, which are commonly measured in terms of relative differences in suspension rates, must consider approaches to discipline of the type that generally reduce suspension rates. The implementation of those approaches thus will tend to increase the discrepancies according to the standard approach to measuring them. See the Keep Kids in School Act subpage of the Discipline Disparities regarding proposed legislation contemplating that, in accordance with beliefs of the Department of Justice, Education, and Health and Human Services, generally reducing discipline rates will reduce relative racial differences in discipline rates.

The Civil Rights Actually of 1991 provides that employers must justify practices having a disparate impact on protected groups and implement less discriminatory alternatives to practices that can be justified. In enacting the statute Congress had no understanding that relaxing standards or otherwise reducing adverse employment outcomes, and increasing the corresponding favorable outcomes, would tend to increase relative differences in the adverse outcomes while reducing relative differences in the favorable outcomes. Congress continues to have no understanding that it is even possible for the two relative differences to change in the opposite outcome as the prevalence of an outcome changes. Meanwhile it remains possible for courts either to measure disparate impacts in terms of relative differences in favorable outcome or relative differences in adverse outcomes. No court has yet recognized that it is possible for the two relative differences to change in opposite directions as the prevalence of an outcome changes. See the letter to Federal Judicial Center (July 7, 2016). See the Less Discriminatory Alternative - Substantive subpage of the Disparate Impact. See generally the main Disparate Impact and each of its subpage regarding the lack of understanding of the relationship between the frequency of an outcome and measures of differences between outcome rates among all entities having a role in the enforcement of laws against employment discrimination.

Federal legislations impose a variety of obligations to monitor demographic differences in certain outcomes. The obligation to monitor demographic differences in assignment to special education programs imposes what would seem to be an very large administrative burden on states. Yet, neither the Congress that imposes the obligations, the Department of Education that

promulgates regulations implementing or expanding those obligations, the Government Accountability Office that attempts to monitor the actions of the Department of Education, nor the divisions of the state government that attempt to fulfill those obligations are yet aware that actions that generally reduce assignment to special education tend to increase relative racial differences in assignment rates.

In sum, the matters discussed above only suggest the scope of activities of government and private actors where failure to understand the ways relative differences in outcome rates tend to be affected by the prevalence of an outcome undermine programs aimed at monitoring or ameliorating demographic differences.

B. Absolute Differences and the Odds Ratios

Appraisals of differences in the circumstances of advantaged and disadvantaged groups reflected by their outcome rates in terms of absolute (percentage point) differences between rates and differences measured by odds ratios are unaffected by which outcome one examines. But in order for a measure to effectively quantify the strength of the forces causing outcome rates to differ, it must remain unchanged as there occurs a general change in the prevalence of an outcome akin to that effected by the lowering of a test cutoff. And, like the two relative differences, absolute differences and odds ratios also tend to be affected by the frequency of an outcome, though in a more complicated way than the two relative differences.

Roughly, as uncommon outcomes (below 50% for both groups) become more common, absolute differences between rates tend to increase; as common outcomes (above 50% for both groups) become even more common, absolute differences tend to decrease. The frequency-driven direction of change of the absolute difference is harder to predict when the outcome is neither common nor uncommon or moves between categories of prevalence during a period examined. In the situations reflected in Tables 1 and 2, the rates of experiencing the favorable and corresponding adverse outcomes happen to be in ranges where movements from the first row to the second row would reduce absolute differences, while movement from the second row to the first row would increase absolute differences. The school discipline and criminal justice outcomes where focus is generally on relative differences in adverse outcomes or the proportions disadvantaged groups make up of persons experiencing those outcomes – both of which tend to increase as the outcome generally decreases – also happen to be in ranges where reductions in the adverse outcome will tend to reduce absolute differences between rates.

The absolute difference and both relative differences may all change in the same direction as the frequency of an outcome changes (in which case the difference measured by the odds ratio will also change in the same direction as the other measures). But in the common situation where all measures do not change in the same direction as the frequency of an outcome changes, the absolute difference will tend to change in the same direction as the smaller relative difference. Observers who rely on relative differences to appraise the difference in the circumstances of two groups reflected by their differing outcome rates tend usually to rely on the larger of the two relative differences (as discussed above). [47]   Thus, there

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[47] The tendency to rely on the larger of the two relative differences sometimes causes researchers to rely both on relative differences in favorable outcomes and on relative differences in adverse outcomes in the same study. See the Immunization Disparities page of jpscanlan.com regarding a study that examined immunization disparities in

exists a systematic tendency for observers relying on the absolute difference to reach opposite conclusions about directions of changes in the size of demographic differences, or about the comparative size of the differences in different settings, from observers relying on a relative difference.

Further, anytime an observer notes that the absolute difference has changed in a different direction from the relative difference the observer happens to be examining, the unmentioned relative difference will necessarily have changed in the opposite direction of the mentioned relative difference and the same direction as the absolute difference. Thus, observers maintaining that one must make a value judgment in choosing between the relative difference and the absolute difference with respect to the appraisal of a particular change in some demographic disparity over time have already made a choice (usually without thought) to rely on the relative difference that yields an opposite conclusion from the absolute difference rather than the relative difference that yields the same conclusion as the absolute difference.

As the frequency of an outcome changes, and all measures do not change in the same direction, the difference measured by the odds ratio tends to change in the opposite direction of the absolute difference and in the same direction as the larger relative difference.

These patterns are illustrated in Figures 2 and 3, which are based on the same specifications as Figure 1, and similarly show the implications of lowering a cutoff from a point where almost everyone fails to a point where almost everyone passes. Figure 2 presents the pattern for the absolute difference. Figure 3 presents the pattern for the ratio of the disadvantaged group's odds of failing the test to the advantaged group's odds of failing the test.[48] But in order to illustrate the relationship with the two relative differences, a line for the odds ratio is simply added to the lines for the two relative differences previously shown in Figure 1.

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terms of relative differences in the adverse outcome for receipt/non-receipt of any immunization and relative differences in the favorable outcome for receipt/non-receipt of full immunization and the McKinsey Achievement Gap Study subpage of the Educational Disparities page regarding a study where the authors relied on the relative difference in the adverse outcome for reaching/failing to reach the basic proficiency level but on the relative difference in the favorable outcome for reaching/failing to reach the advanced proficiency level. In both cases the authors relied on the larger of the two relative differences with respect to each of the subjects examined and without recognizing that general increases in favorable outcome would tend to increase relative differences in the adverse outcomes while reducing relative differences in the favorable outcomes. See also the letter to New York City Center for Innovation through Data Intelligence (June 6, 2016).

[48] There are four odds ratios depending on which outcome is examined and which group's odds is used as the numerator of the ratio. Two yield one value and two yield a value that is the reciprocal of the first value. The ratio of DG's failure odds to AG's failure odds is the same as the ratio of AG's pass odds to DG's pass odds. Thus, the odds ratios underlying Figure 3 are also the ratios of AG's odds of passing the test to DG's odds of passing the test.

Figure 2. Absolute differences between rates of AG and DG pass (or fail) rates at various cutoff points defined by AG fail rate
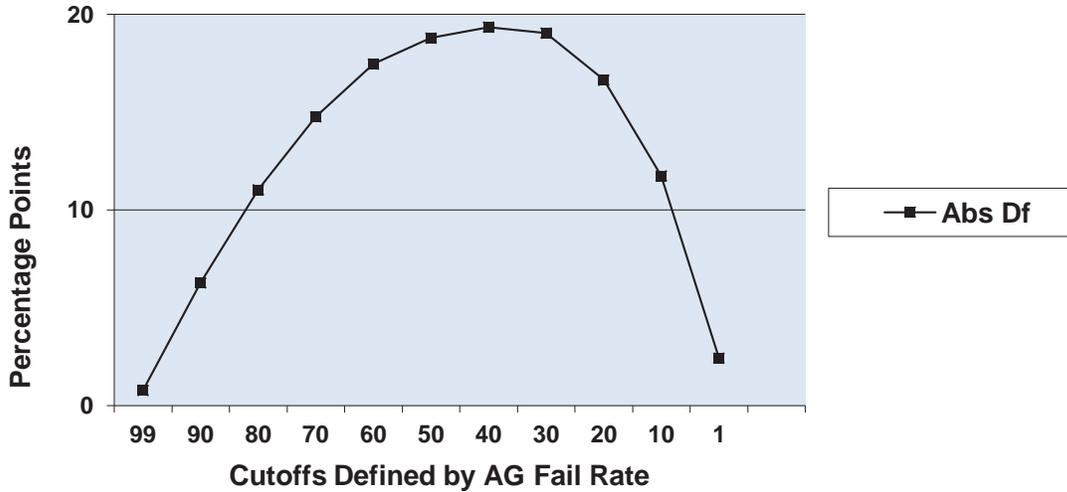
Figure 3. Ratios of (1) DG fail rate to AG fail rate, (2) AG pass rate to DG pass rate, (3) DG failure odds to AG failure odds
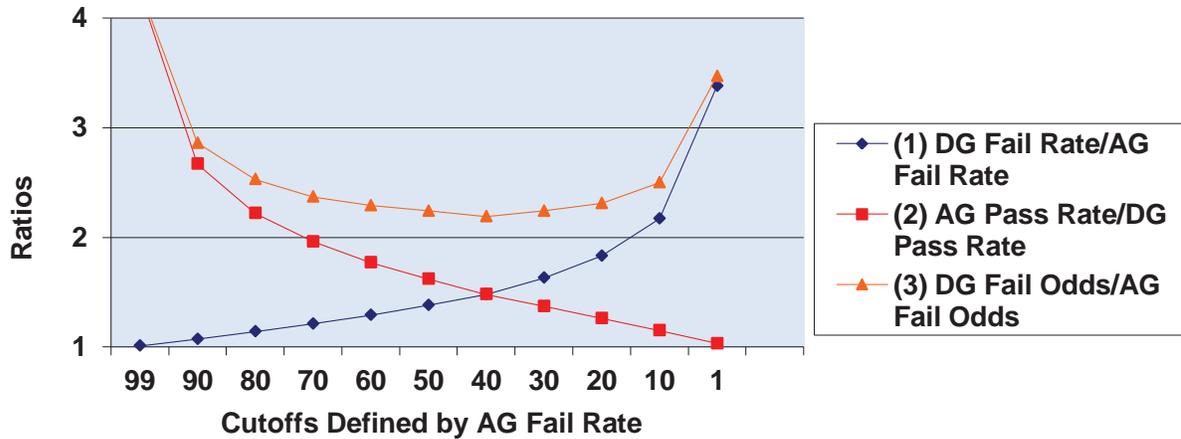
Table 3 below, which is based on the same specifications as Table 1 and Figures 1 to 3, presents favorable outcome rates at four prevalence levels (benchmarked on the advantaged group's favorable outcome rate), along with rate ratios for the favorable and adverse outcomes as well as absolute differences and odds ratios. The parenthetical numbers indicate the ways one would rank the size of the disparity between the situation of the advantaged and disadvantaged groups according to each of the four measures. Those numbers show that rankings according to relative differences in favorable outcomes are the opposite of rankings according to relative differences in adverse outcomes. They also show that rankings according to absolute differences and odds ratios, while different from the rankings according to either relative difference, are the opposite of each other.

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Table 3. Favorable outcome rates of advantaged group (AG) and disadvantaged group (DG) at four settings with different favorable outcome frequencies, with measures of difference

	AG Fav Rate	DG Fav Rate	AG/DG Fav Ratio	DG/AG Adv Ratio	Abs Df (Perc Pnts)	Odds Ratio
A	20.0%	9.0%	2.22 (1)	1.14 (4)	11.0 (4)	2.53 (1)
B	40.0%	22.6%	1.77 (2)	1.29 (3)	17.4 (2)	2.28 (3)
C	70.0%	51.0%	1.37 (3)	1.63 (2)	19.0 (1)	2.24 (4)
D	80.0%	63.4%	1.26 (4)	1.83 (1)	16.6 (3)	2.31 (2)

A version of this table appears as Table 5 (at 335) of "Race and Mortality Revisited," where, as in many other places, it is used to refute the notion that choice of a measure in analyses of demographic differences in health or healthcare outcomes involves a value judgment. I will rest here on the treatment of that issue in "Race and Mortality Revisited" (at 335-336) and other places.

But I also note the following. In the case of Table 5 in "Race and Mortality Revisited" I cast the matter cast in terms of situations where one has to rank, according to the degree of discrimination or the likelihood of discrimination, four employers or one employer at four points in time. I cast the matter that way in order to cause the reader to recognize that there can be only one answer to the question of whether the forces causing the outcome rates to differ are larger in one situation than another and that, while the answer may be difficult to divine, value judgments have can have no role in the matter.

The same considerations apply when the purpose of examining patterns of differences in outcome rates is to inform policies aimed at mitigating differences in the circumstances of two groups. Further, anyone inclined to believe that the particular measure ought to be the focus in the appraisal of demographic differences irrespective of prevalence considerations ought to recognize that policymakers have a great interest in knowing whether policies will cause that measure to change more than, less then, or in a different direction from what would be likely to occur solely as a consequence of changes in the prevalence of an outcome.

But I include Table 3 here principally to illustrate certain points about the absolute difference in contexts where observers commonly rely on that measure. The premise of the table, as reflected by its specifications, is that there is no rational basis to maintain that the strength of the forces causing the favorable (or adverse) outcome rates of the advantaged and disadvantaged groups to differ varies among the rows.

Areas of research or commentary where observers commonly or increasingly rely on absolute differences between rates include appraisals of demographic differences in healthcare and academic proficiency.

In the case of healthcare, increases in rates of appropriate care will tend to increase absolute differences between rates of advantaged and disadvantaged groups for uncommon procedures/outcome, while reducing absolute differences for common procedures/outcomes.

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Such patterns are reflected by movement from Row A to Row B of Table 3 for the former procedures/outcomes and from Row C to Row D for the latter procedures/outcomes. When healthcare outcomes increase from being fairly uncommon to being very common (as in the case of certain vaccines and screening practices) the absolute differences will tend to increase for a time and then decrease.

    Further, higher-performing hospitals (which tend to have generally higher appropriate care rates than lower-performing hospitals) will tend to show larger absolute differences between appropriate care rates of advantaged and disadvantaged groups than lower-performing hospitals for procedures/outcomes where rates are generally low, while showing smaller absolute differences for procedures/outcomes where rates are generally high. This pattern, too, is illustrated in Table 3 if Rows A and B are regarded as the lower- and higher-performing hospitals with respect to procedures/outcomes with generally low rates and Rows C and D are regarded as such hospitals with respect to procedures/outcomes with generally high rates.

    Odds ratios would tend to show patterns that are the opposite of those just described for absolute differences. In situations where observers draw initial conclusions about such things as changes in the size of healthcare disparities over time on the basis of absolute differences between rates, and then employ logistic regression to adjust for the role of possible confounders, the odds ratio yielded by the adjustment will tend to show a pattern that is the opposite of that shown by the absolute difference.[49]

    Observers relying on absolute differences to measure healthcare disparities, however, have yet to recognize the ways absolute differences tend to be affected by the frequency of an outcome or that other measures would tend to systematically yield opposite results (*i.e.*, the larger relative difference and the odds ratio) or consistent results (*i.e.*, the smaller relative difference). Commonly observers relying on absolute differences, like those relying on one of the two relative differences, show no awareness that choice of measure is of any consequence.

    The confusion arising from the failure to understand patterns by which absolute differences between health and healthcare outcome rates of advantaged and disadvantaged groups tend to be affected by the prevalence an outcome is vast. "Race and Mortality Revisited" (at 337-339) discusses the way the failure to understand these patterns caused Massachusetts unwisely to include a health disparities element in its Medicaid pay-for-performance program and then to measures disparities in a way that, by generally favoring higher-performing hospital for reasons unrelated to actual differences in equity of care, will tend to increase healthcare disparities.

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[49] Though I give only limited attention to the odds ratio, I recognize that some might deem it a measure essentially unaffected by the prevalence of an outcome (even though it seems principally to be employed as a convenient substitute for a rate ratio). I discuss the potential for the odds ratio to be an effective measure in note 22 (at 14) of letter to the Antioch Unified School District (Sept. 9, 2016), but leave the utility of the measure, like the utility of the measure I discuss in "Race and Mortality Revisited," as a matter for the Commission to consider in its efforts to reform the analyses of demographic differences with regard to the way such analyses affect appraisals of policies and programs. I merely note here that, as with other measures, researchers should be required to address whether and how the differences measured by the odds ratio tends to be affected by the prevalence on an outcome in the case of the matter under study. The same holds for any regression approach to appraising demographic differences.

A useful illustration of the way prevalence issues are ignored may be found in a group of articles appearing in the August 18, 2015 issue of the *New England Journal of Medicine* (*NEJM*), along with a commentary thereon and a letter to the editors by three authors of the 2005 NCHS monograph. A study by Vaccarino *et al.*[50] relied on relative differences in favorable healthcare outcomes (though relative differences in adverse outcomes for health status issues) with regard to outcome rates that were not changing much in overall prevalence during the period examined; and, as commonly happens when overall prevalence does not change much, the study found little to remark on with respect to changes in disparities over time. A study by Jha *et al.*[51] relied on absolute differences between rate in examining disparities in rates of receiving certain fairly uncommon procedures that were generally increasing in overall prevalence; and, as commonly happens when outcome rates in the rate ranges at issue are generally increasing, the authors found absolute differences usually to have increased. A study by Trivedi *et al.*[52] relied on absolute differences between rates in examining adequacy of care (which included both treatment and control of conditions) where adequacy of care rates (especially as to treatment) were at generally high levels and increasing; and, as commonly happens in such circumstances, the authors found absolute difference between rates usually to have decreased (especially as to treatment).[53] A commentary[54] discussed the various findings and their perceived implications and stressed the need for more health disparities research and action to reduce such disparities. As was common in 2005, as it is now, neither the commentary nor any of the articles mentioned anything about the way different measures might yield different conclusions or the way any measure might be affected by general changes in the prevalence of the outcome being examined.[55]

A number of letters were published in response to the series.[56] Only Keppel *et al.*[57] directly addressed measurement issues. The letter, by three authors of the NCHS 2005 health

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[50] Vaccarino V, Rathore SS, Wenger NK, et al. Sex and racial differences in the   management of acute myocardial infarction, 1994 through 2002. N Engl J Med   2005;353:671-682.

[51] Jha AK, Fisher ES, Li Z, Orav EJ, Epstein AM. Racial trends in the use of major procedures among the elderly. N Engl J Med 2005;353:683-691.

[52] Trivedi AN, Zaslavsky AM, Schneider EC, Ayanian JZ. Trends in the quality of care and racial disparities in Medicare managed care. *N Engl J Med* 2005;353:692-700.

[53] See Comment on Trivedi JAMA 2006 (2007) regarding the authors' later effort to explain different patterns as to treatment and control, making very reasonable points in doing so, but without consideration of the generally lower rates of control compared with treatment.

[54] Lurie N. Health disparities – Less talk. more action. N Engl J Med 2005;353:727-729.

[55] Two studies on healthcare disparities in a recent issue of the NEJM are by groups of authors that include co-authors of the Trivedi 2005 study. See (a)Trivedi AN, Nsa W, Hausmann LRM, et al. Quality and equity of care in U.S. hospitals. N Engl J Med 2014;371:2298-308; and (b) Ayanian JZ, Landon BE, Newhouse JP, Zaslavsky AM. Racial and ethnic disparities among enrollees in Medicare Advantage plans. N Engl J Med 2014;371:2288-97.) These studies also rely on absolute differences between rates to measure healthcare disparities, again without consideration of the effects of frequency of the outcomes on the measures employed or mention that other measures might yield different conclusions.

[56] Trends in racial disparities in care. N Engl J Med 2005;353:2081-2084.

disparities measurement monograph that recommend that all disparities be measured in terms of relative differences in adverse outcomes, presented an elaborate table to show, *inter alia*, that in four of the cases where the Trivedi study found decreasing disparities, relative differences in adverse outcomes indicated increasing disparities. The letter urged greater consistency in the reporting of disparities. Observers relying on the revised NCHS guidance, however, would instead note that relative differences in the favorable healthcare outcomes either (a) were usually consistent with the Trivedi study or (b) were usually inconsistent with the Jha study. [58]

The Jha study also has a role in an extreme example of the confusion among persons attempting to measure health and healthcare disparities. A 2004 *American Journal of Public Health* (AJPH) study[59] examined changes in racial disparities in certain fairly uncommon procedures among Medicare beneficiaries between 1986 and 1997, a period in which the procedures were generally increasing. As commonly occurs in the circumstances, the results showed that, in the main, relative difference in receipt of procedures decreased while absolute differences (and relative differences in non-receipt) increased. Relying on relative differences between rates of receiving such procedures to measure disparities, a common approach at the time, the authors found that disparities generally decreased. The Jha study mentioned above had examined changes in racial disparities in similarly uncommon procedures among Medicare beneficiaries between 1992 and 2001, also a period when rates were generally increasing. The results were much like those of the 2004 AJPH study, *i.e.*, usually decreasing relative differences in receipt of procedure and increasing absolute differences (and relative differences in non-receipt of the procedures). In this case, however, because the authors relied on absolute differences between rates to measure disparities, they found disparities usually to be increasing. A 2008 article[60] in *Medical Care Research and Review* then discussed the seemingly contrasting findings of directions of changes in the two studies. And without consideration of the role of choice of measure in the reportage of results or showing any awareness of the measures used in the two studies, the article opined that differing conclusions in the studies may have had to do with the absence of complete overlap of the time periods studied. In essence, the study called for more research into why studies yielded contrasting results when in fact the studies had yielded essentially the same results. See the Spurious Contradictions subpage of the Measuring Health Disparities (MHD) page of jpscanlan.com.

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[57] Keppel KG, Pearcy JN, Weissman JS. Untitled. N Engl J Med 2005;353:2082-2083.

[58] I discuss the 2005 NEJM study in "Race and Mortality Revisited" (at 338), and quite a few other places. See the above-mentioned October 9, 2012 letter to Harvard University (at 34-35).

[59] Escarce JJ, McGuire TG. Changes in racial differences in use of medical procedures and diagnostic tests among elderly persons: 1986-1997. Am J Public Health 2004;94:1795-1799.

[60] Lê Cook B, McGuire TG, Zuvekas SH. Measuring trends in racial/ethnic health care disparities. Med Care Res Rev. 2009 Feb; 66(1):23-48.

An extreme example of wasted resources as result of the failure to grasp even that different measure commonly yield different conclusions about changes over time may found in AHRQ-funded review, costing between $5 million and $10 million, of the effects of improvement in healthcare on healthcare disparities. The study examined 4,258 studies but did not even report the measures employed in the studies. See "Race and Mortality Revisited" (at 333) and the AHRQ's Vanderbilt Study subpage of Measuring Health Disparities page.

In the prior section, I discussed that National Healthcare Disparities Reports had relied on NCHS recommendations to measure disparities in terms of relative differences in non-receipt of care. But it has not invariably implemented that approach successfully. The letter July 1, 2015 letter to the Agency for Healthcare Research and Quality discusses that confusion about measurement issues caused the 2012 National Healthcare Disparities Report to highlight as some of the largest reductions in healthcare disparities over a particular period situations where the report would also find the disparities to be substantially larger at the end of the period than at the beginning of the period. This occurred because the agency apparently measured changes in disparities according to the comparative size of the percentage point changes in each group's rate without understanding that doing so could yield a different result from the comparative size of the relative difference in the adverse outcome at the beginning of the period and the end of the period.[61]

As a result of contacts from AHRQ personnel, I know that AHRQ gave some attention to the issues raised in my letter. But I cannot tell whether the agency yet understands the matter. In consequence of the agency's no long publishing the tables underlying its analyses, I cannot tell precisely how it measured disparities in the 2015 report. The Chartbook on Healthcare for Blacks (at 49) discusses disparities in prenatal care in terms that "Black mothers were 2.3 times as likely as White mothers to delay prenatal care to the third trimester or to not receive prenatal care at all (10.0% compared with 4.3%)." That seems to indicate that the report continues to measure healthcare disparities in terms of relative differences in adverse outcomes, notwithstanding the NCHS reversal of position. On the other hand, the Chartbook on Health Living presents a map ranking states according to the size of absolute differences between black and white rates of receiving early and adequate prenatal care. Given the rate ranges at issues for receipt/non-receipt of prenatal care, rankings according to relative differences in non-receipt will depart substantially from rankings according to absolute differences and general increases in appropriate care rates will tend to increase the former while reducing the latter. Thus, as in the 2012 report, the agency seems still to employ measures that tend to yield opposite conclusions from one another without apparent awareness of the conflict.

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[61] The following may have played a part in the agency's confusion. Like NCHS, AHRQ measures changes in disparities in terms of percentage point changes in relative differences. Unlike NCHS, however, AHRQ uses the "%" sign to mean percentage points, while also using the sign to mean percent in the relative sense. See the Percentage Points subpage of the Vignettes page of jpscanlan.com. In any case, the 2011 report (at 44) described changes in disparities in terms both of (a) % changes (meaning percentage point changes) in the disparities (i.e., changes in relative differences in adverse outcomes) and (b) % differences (meaning percentage point differences) between the percentage point changes in the rates of the groups being compared. In the situation where the relative difference in the adverse outcome and the absolute difference change in opposite directions, methods (a) and (b) will yield opposite conclusions as to directions of changes.

I have found no indication in the 2015 report that AHRQ is aware that NCHS has reversed the recommendation to rely on relative differences in non-receipt of care rather than receipt of care. One reason why AHRQ would not appreciate the significance of the revision is that AHRQ has not previously shown an understanding of the possibility that the direction of changes in disparities may turn on which relative difference is examined (though my letter should have made that clear enough). That is also a reason why AHRQ would not recognize that the NCHS reversal of position constitutes a repudiation of the first decade of National Healthcare Disparities Reports.[62]

In any case, confusion issues aside, the National Healthcare Disparities Reports have been universally undermined by failure to recognize the ways that the measures it employed or intended to employ tended to be affected by the prevalence of an outcome. The same holds for AHRQ funded-research.

The above discussion of the failures of understanding on the part of AHRQ should not be read to suggest that those failures are more serious than found elsewhere. The same failures exist in all parts of the federal health and healthcare disparities research establishment, including the Centers for Disease Control and Prevention (CDC), and at all institutions conducting such research.[63]

As indicated, the NCHS's recognition of the pattern by which the two relative differences tend to be affected by the prevalence of an outcome has done nothing to improve that agency's own research or the guidance it provides to other agencies or private researchers. Indeed, the agency's manner of dealing with such issue would tend affirmatively to lead other entities and researchers to believe that a crucial issue is a non-issue. As discussed in the 2016 JPHMP commentary, the recent guidance on which relative difference in healthcare outcomes to examine for purposes of Healthy People 2020 obscures the issue even more than prior guidance.

As discussed in the JPHMP commentary, the 2016 article[64] on health disparities measurement CDC and NCHS scientists/statisticians to which the commentary responded may also be deemed an affirmative obscuring of the need to address the implications of the effects of the prevalence of an outcome on measures employed in health and healthcare disparities research. The author's response[65] to the commentary, by attempting to defend the earlier work

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[62] My letter to AHRQ was written before I became aware of the NCHS reversal of position (which may not have yet then occurred).

[63] As indicated the NCHS's recognition of the pattern by which the two relative differences tend to be affected by the prevalence of an outcome has done nothing improve that agency's own research or the guidance it provides to other arms. Indeed, the agency's manner of dealing with such issue would tend affirmatively to lead other entities and researchers that a crucial issue is a non-issue. As discussed in "The Mismeasure of Health Disparities," the recent guidance obscures the issue even more than the prior guidance.

[64] Penman-Aguilar A, Talih M, Huang D, et al. Measurement of health disparities, health inequities, and social determinants of health to support the advancement of health equity. J Public Health Manag Pract. 2016;22(1)(suppl):S33-S42.

[65] Penman-Aguilar, Talih M, Moonesinghe R, Huang M. "Response to Scanlan Concerning: Measurement of Health Disparities, Health Inequities, and Social Determinants of Health to Support the Advancement of Health Equity. J Public Health Management Practice 2016;22(6), 614-615 [lttr].

without addressing the patterns by which standard measures tend to be affected by the prevalence of an outcome or the need for researchers to attempt to sort out the effects of the prevalence of an outcome on the measure employed, constitutes a further obscuring of the issue.

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In the case of academic proficiency, irrespective of any change in the forces causing outcome rates of advantaged and disadvantaged groups to differ, general improvements in proficiency scores will tend to increase absolute differences between rates at which such groups reach the advanced level (where favorable outcome rates tend to be well below 50%) as reflected by movement from Row A to Row B in Table 3. On the other hand, general improvements in scores will tend to reduce such differences between rates of achieving the basic level (where favorable outcome rates are often well above 50%), as illustrated by movement from Row C to Row D. General deterioration in test performance will tend to have the opposite effect. Like patterns will tend to be observed when proficiency standards are altered or a proficiency test is replaced with one that is easier or harder.

Discussions of situations where observers commonly rely on absolute differences to measure educational disparities, but without understanding the patterns by which such measures tend to be affected by the prevalence of an outcome, may be found in the Educational Disparities page of jpscanlan.com and its Disparities by Subject, New York Proficiency Rate Disparities, Education Trust High Achiever Study , Education Trust Glass Ceiling Study, Education Trust High Achiever Study, Education Trust Glass Ceiling Study, Annie E. Casey 2014 Proficiency Disparities Study subpage. See also the letters to the Annie E. Casey Foundation (May 13, 2014) and Education Trust (April 30, 2014).[66]

But see the discussion at page 3-4 of the letter to the Stanford Center on Poverty and Inequality (Mar. 8, 2016) regarding the work of work of Harvard Professor Andrew Ho and Stanford Professor Sean Reardon. Professor Ho independently recognized the patterns by which absolute differences between outcome rates tend to be affected by the prevalence of an outcome and the implications of those patterns regarding the appraisal of demographic differences in proficiency rates.[67] While the Ho article and the illustration in its Figure 2 is focused solely on patterns by which absolute differences tend to be affected by the prevalence of an outcome, the rates that underlie the figure would also form the basis for the illustrations of patterns of relative differences and odds ratios in Figures 1 and 3 in these comments. Work of Professors Ho and Reardon regarding the measurement of proficiency disparities in ways unaffected by the

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[66] In some cases, differences in proficiency outcomes (or comparable outcomes) are measured in terms of either the relative difference in the favorable outcome or the relative difference in the adverse outcome or both relative differences. Invariably, however, those employing such measures do so without apparent awareness of the ways the measures employed tend to be affected by the prevalence of the outcome. The Harvard CRP NCLB Study and McKinsey Achievement Gap Study subpages of the Discipline Disparities page and the letter to New York City Center for Innovation through Data Intelligence (June 6, 2016).

[67] Ho, Andrew D. 2008. "The problem with 'proficiency': Limitations of statistics and policy under No Child Left Behind," *Educational Researcher,* 37,351–360.

prevalence of an outcome, [68] seems to be suggest approaches generally along the lines of the approach suggested in "Race and Mortality Revisited" and the October 2015 ASA letter. But, for reasons discussed in the Introduction, such matter is beyond the scope of these comments.

The following observations are in order regarding the general rigor in the study of demographic differences in terms of relative or absolute differences between outcome rates.

The attentions researchers have recent given to value judgments in the analysis of demographic differences, such as I discuss in "Race and Mortality Revisited," the 2016 JPHMP commentary, and the Comment on Mackenbach BMJ 2016 (2016) as principally diverting attention from the crucial measurement issues, remains an exception to usual practice. Usual practice continues to be characterized by reliance on a preferred measure without mention of any other measure or whether such measure might, or in fact does, yield a different conclusion from the one employed in a particular study, even when the other measure may be the one most commonly employed in the circumstances. So far as I can tell, such practices is permitted in essentially all medical and other scientific journals. And it allows observers to make whatever claim they wish about how particular policies or trends disparately affect different groups. See discussions regarding the suburbanization of poverty on the Feminization of Poverty page of jpscanlan.com, Table 30 (slide 118) of the University of Maryland Workshop referenced in note 18 and the letter to Antioch Unified School District (Sept. 9, 2016).

Requirements that persons analyzing demographic differences explain the reasons for their choice of measure and how other measures might or do yield contrary results would not address the key measurement issues discussed here and might even detract from them in the way recent discussions of value judgments have. But the fact that it is usually deemed permissible to use any measure one chooses to analyze demographic differences nevertheless highlight the need for fundamental reform in this area.

C. The Appraisal of Demographic Differences in Terms of the Proportion a Group Comprises of Persons Potentially Experiencing an Outcome and the Proportion it Comprises of Persons Actually Experiencing the Outcome

Sometimes observer measure demographic differences on the basis of comparisons between the (a) proportion a group makes up of persons potentially experiencing a favorable or adverse outcomes outcome (the pool) and (b) the proportion it makes up of persons actually experiencing the outcome. This has long been the case with regard to selection issues in employment, where the analyses of discrimination issues commonly involve a comparison of the proportion a group makes up of the pool with the proportion is comprises of persons experiencing a favorable employment outcome. See *Hazelwood School District v United States*, 433 U.S. 299 (1977). The issues addressed here apply to those situations. See Kansas Law paper (at 23-26) and the TDHCD brief (at 23-27).

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[68] Ho, Andrew D., and Reardon, Sean F. 2012. "Estimating Achievement Gaps From Test Scores Reported in Ordinal 'Proficiency' Categories," *Journal of Educational and Behavioral Statistics*, 37(4), 489–517.

But I principally address this subject with regard to perceptions about differences between the proportion a group comprises of the pool and the proportion it comprises of persons experiencing an adverse outcome. Such comparisons are increasingly a focus of attention to disparities issues involving school discipline and criminal justice. See the Department of Health and Human Services and Department of Education (Aug. 24, 2015) and the letters to school districts and to Texas Appleseed (Apr. 7, 2015) regarding school discipline. See "Things DoJ doesn't know about racial disparities in Ferguson," *The Hill* (Feb. 22, 2016) and Things the President Doesn't Know About Racial Disparities," Federalist Society Blog (Aug. 5, 2016) regarding criminal justice.

Commonly such comparisons are made without indicating how one might measure the difference between (a) and (b). But a Department of Education-funded document titled "Methods for Assessing Racial/Ethnic Disproportionality in Special Education" which I discuss on the IDEA Data Center Disproportionality Guide subpage of the Discipline Disparities page, shows how to calculate both relative and absolute differences between (a) and (b) and those are the likely approaches of anyone who wants to quantify differences between (a) and (b).[69]

The proportion a group comprises of persons experiencing an outcome is a function of the relative difference and therefore the appraisal of disparities based on any measure of the difference between (a) and (b) is unsound in the same way the relative difference is unsound when employed without regard to the manner in which the measure tends to be affected by the prevalence of an outcome.

But there are additional reasons why one can never soundly analyze a demographic difference on the basis of a comparison of (a) and (b). The more extended treatments of measurement issues discussed in the Introduction should make clear than any sound effort to appraise a demographic difference must be based on the actual rates at which two groups experience the outcome. That also holds for observers who might maintain that the odds ratio is a measure unaffected by the prevalence of an outcome, since the actual rates are necessary in order to calculate the odds ratio. See note 49 *supra.*[70]

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[69] In the employment setting, there occur misguided efforts to quantify the difference between (a) and (b) in terms of the statistical significance of such difference given the number of selections at issue. Problems with that approach are different from the quantification issues addressed in these comments. See the Kansas Law paper (at 26-27). But such are problems are among many issues not specifically addressed here that the Commission must address in attempting to reform analyses of demographic differences that may inform policies and programs.

[70] One also needs the actual rates to determine the absolute difference between rates. It is doubtful that anyone would maintain that absolute differences does not tend to be affected by the prevalence of an outcome (save in the case of uniform underlying distributions). It warrants note, however, that in cases where the only information available is (a) and (b), observers who would otherwise rely on absolute differences may well rely on some measures of the difference between (a) and (b). Comparisons of (a) and (b) will commonly yield opposite conclusions about directions of change from those based on absolute differences in matters like school discipline disparities. See the letter to Antioch Unified School District (Sept. 9, 2016) regarding a suit where the discipline disparities measure employed in the complaint tends to yield opposite conclusions from the measure commonly employed by the principal expert discussed in the complaint.

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Information on (a) and (b) allow one to calculate a ratio of the rates of experiencing the outcome addressed in (b) (though not the rate ratio for the opposite outcome). See Kansas Law paper (at 24 n. 26). But such information does not enable to one to divine the actual rates at which the two groups experience the outcome.

Further, the proportion a group comprises of the pool will affect both relative and absolute differences between (a) and (b) in ways that have nothing to do with the strength of the forces causing (a) and (b) to differ. That is, suppose that the rates for an adverse outcome of an advantaged group (AG) and disadvantaged group (DG) are 10% and 20% respectively in two settings (*e.g.*, different school districts). Putting aside how one might effectively quantify the difference in the circumstances of AG and DG reflected by the 10% and 20% outcome rates, there is no basis to say the difference is larger in one setting than the other. Yet, given those 10% and 20% rates, the relative and absolute differences between (a) and (b) will vary in a variety of ways depending on the proportion the disadvantaged group comprises of the pool of persons potentially experiencing the outcome.

The patterns by which the proportion a group comprises of the pool affects relative and absolute differences between (a) and (b) are discussed and illustrated in the above-mentioned my IDEA Data Center Disproportionality Guide subpage. They are also illustrated in the slides 97 to 108 of the University of Maryland methods workshop mentioned in note 9.

It is unnecessary to illustrate those patterns here, however. For the previously mentioned issues provide sufficient reason why demographic differences should never be analyzed on the basis of comparisons between the proportion a group comprises of the pool and the proportion it comprises of persons experiencing some favorable or adverse outcome.

The failure of the government or research communities to recognize these issues does, however, further illustrate the need the Commission to take actions of the kind outlined in Part III.

D. Subgroup Effects Issues

Section A discusses the failure of persons examining subgroup effects or drawing inferences about processes on the basis of the comparison of relative effects of a factor on different subgroups (or in different settings) to understand the reasons to expect a factor affecting an outcome rate to cause a larger proportionate change in the rate for the group with the lower baseline rate for the outcome while causing a larger proportionate change in the opposite outcome rate for the other group.[71] That section and the materials it references also explain that, so far as the published reveals, never has anyone identifying a subgroup effect or drawing an inference based on the comparative sizes of relative effects recognized that examination of the opposite outcome could (or commonly would or in fact would in the particular situation examined) form the basis for an opposite subgroup effect or opposite inference. See especially "Race and Mortality Revisited" at 339-341.

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[71] See also the October 9, 2012 letter to Harvard University at 39-40.

Irrespective of such pattern, however, it should be recognized that it is illogical to believe that, absent a subgroup effect as such effect is typically analyzed, one would expect a factor that affects on outcome rate to have the same relative effect on different baseline rates for the outcome. For if a factor causes two groups to experience equal proportionate changes in different baseline rates for one outcome, it necessarily causes the groups to experience unequal proportionate changes in their rates for the opposite outcome. Since there is no more reason to expect equal proportionate changes in one outcome than there is to expect equal proportionate changes in the opposite outcome, it is illogical to expect equal proportionate changes in either outcome.

Aspects of this issue are discussed on following subpages to the Scanlan's Rule page of jpscanlan.com. The pages are in many respect duplicative of one other. But in my view (at least of the time of creating it) each added an additional element of sufficient importance, or caused a particular aspect of the matter sufficiently be better focused, to warrant the creation of the page.

The Subgroups Effects subpage discusses this issue with regard to the clinical setting, while explaining the implications of the above-described pattern of relative effects with regard to employing an observed risk reduction in a clinical trial to estimate the absolute risk reduction (and corresponding number-needed-to-treat) in circumstances involving baseline rates different from that in the trial. Illustrations pertinent to this subpage may be found in my presentation at the 2009 Joint Statistical Meetings "Interpreting Differential Effects in Light of Fundamental Statistical Tendencies" (abstract)

The Subgroup Effects – Nonclinical subpage discusses the subject with regard to perceptions about subgroup effects in non-clinical settings.

The Illogical Premises subpage discusses the illogic of the belief that a factor will tend to cause the same proportionate effect on different baseline rates while addressing whether similar expectations for the absolute difference and odds ratio would be illogical as well.

The Illogical Premises II discusses that, for the same reason that it is illogical to expect a factor typically to show the same relative effect on different baseline rates of experiencing the outcome, it is illogical to regard a particular rate ratio as reflecting the same strength of an association for different baseline rates for an outcome.

The Inevitability of Interaction subpage why any time a factor in fact shows equal proportionate changes for rates of experiencing an outcome (thus, the absence of an interactive effect) it will necessarily show a different proportionate effect on the opposite outcome.

The Interactions by Age subpage, which is closely related to the Life Tables Illustrations subpage, discusses the fact that almost invariably in comparisons of age groups with substantially different mortality rates, one will find opposite patterns of interaction depending on whether one examines a factor's effect on mortality or on survival (that is, that the age group with the smaller proportionate effect on its mortality rate will show the larger proportionate effect on its survival rate).

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Other treatments of these issues may be found in my Comment on FDA Proposed Subgroup Regulations (May 16, 2014) Comment on European Medicines Agency Subgroup Guidelines (July 31, 2014).

Relatively succinct treatments of the issues with reference to journal articles regarding subgroup effects, reporting heterogeneity, perceptions about the constancy of the rate ratio across different baseline rates, calculation of number-needed-to-treat, or stratified medicine may be found in Comment on Hingorani BMJ 2013, Comment on Barrett CMAJ 2004 (2012), Comment on Delpierre BMC Public Health 2012 (2012), Comment on Wang Emerging Themes in Epidemiology 2009 (2012), Comment on Altman BMJ 2003 (2011), Comment on Kent Trials 2010 (2011), Comment on White BMC Med Res Meth 2005 (2011), , Comment on Schwartz BMJ 2007 (2011), Comment on Cook BMJ 1995 (2011), Comment on Huisman Int J Epidemiol 2007 (2010), Comment on Chatellier BMJ 1996 (2011), Comment on Mullins Health Affairs 2010 (2010), Comment on Berrington de Gonzalez MEJM 2010 (2010), Comment on Sun BMJ 2010 (2010), Comment on Gabler Trials 2009 (2009), Comment on Kawachi Health Affairs 2005 (2008), Comment on Gan NEJM 2000 (2007), Comment on Mustard JECH 2003 (2007), Comment on Thurston AJE 2005 (2007), Comment on Martikainen JECH 2007 (2007), Comment on Kaplan JECH 2006 (2006).

As discussed in the introduction to Part I, the patterns discussed in this section are merely manifestation of other patterns described in the introduction and Section A. But given the resources devoted to studies of subgroups effects in clinical and other contexts, and the varied flawed inferences based on perceptions about such effects, perceptions about subgroups effects warrant special attention from the Commission.

II. The Fundamental Unsoundness of Analyses of Discrimination Issues That Examine Data Solely on Persons Who Accepted Some Outcome or Situation.

Most discrimination cases that have yielded recoveries approaching or exceeding $100 million have been based on analyses that examined data solely on persons who accepted some outcome or situation. In the 1990s such cases principally involved claims that persons who were hired into grocery stores or other retailers were disproportionately assigned to jobs that were believed to be less desirable than other jobs. See, *e.g.* "Multimillion-Dollar Settlements May Cause Employers to Avoid Hiring Women and Minorities for Less Desirable Jobs to Improve the Statistical Picture," *National Law Journal* (Mar. 27, 1995) and "Unlucky Stores: Are They All Guilty of Discrimination?" *San Francisco Daily Journal* (Jan. 29, 1993). More recently, such cases have involve claims that lenders disproportionately assigned loans to minorities to subprime status, as in the cases brought by the Department of Justice against Countrywide Financial Corp. and Wells Fargo Bank that were settled for $335 and $175 million. See "The Perverse Enforcement of Fair Lending Laws," *Mortgage Banking* (May 2014), and "Fair Lending Studies Paint Incomplete Picture," *American Banker* (April 24, 2013).

I first discussed this issue with regard so-called job segregation or assignment discrimination claims in "Illusions of Job Segregation," *Public Interest (*Fall 1988) and "Are Bias Statistics Nonsense?" *Legal Times* (Apr. 17, 1989). The former item presents a number of tabular illustrations of why one cannot draw inferences about discriminatory exclusion from

putatively better jobs without consideration of the part of the applicant pool that was not interested in the putatively poorer job.

Table IV of that article explains why one also cannot draw inference about the absence of discrimination of the basis of weaker qualifications of persons from a particular group among persons are hired, which has been asserted as showing that the group is being favored. The reason one cannot draw such an inference is that the group with weaker qualifications among applicants will commonly also have weaker qualifications among persons who are hired even when the group has been subject to discrimination. I have explained this point with regard to arguments that weaker qualifications among athletes from a particular group or college-admissions from a particular group suggests that such groups are being favored "The Perils of Provocative Statistics," *Public Interest* (Winter, 1991). I have also explained it with regard to the claim that higher default rates among minority borrowers suggests that they are being favored in "Both Sides Misuse Data in the Credit Discrimination Debate," *American Banker* (July 22, 1998).

The job segregation/assignment discrimination claims discussed in "Illusions of Job Segregation" or other articles of the 1980s or 1990s involved binary outcomes (at least in the sense that the putative victims of discrimination were being disproportionately assigned to a less desirable rather than a more desirable situation). The same holds for claims of discriminatory assignment of loans to subprime status in recent fair lending cases. But as discussed in the Kansas Law paper (Section F, at 32-35) and the TDHCD brief (Section I.C, at 27-30), the fundamental failing of analyses that fail to examine data on the entire universe at issue also applies to situations of continuous variables like salaries and loan terms.

That is, the validity of allegations that persons from a particular group received lower starting salaries or higher interest rates than persons another group cannot be appraised without consideration of persons who refused to accept those terms (and persons offered no terms at all). Further, in the employment context, whether one group's salary progression was impeded by discrimination cannot be analyzed without consideration of the treatment of the persons who left the employer because of what such persons regarded as inadequate salary progression or for any other reasons.

But an understanding of the implications of the failure to examine data on the entire universe at issues is as universally absent from analyses of discrimination issues as the understanding of patterns by which measures tend to be affected by the prevalence of an outcome is from analyses of demographic differences in outcome rates.[72]

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[72] The aspect of risk distributions underlying the patterns discussed in part are implicated in all efforts to analyze discrimination issues in the same way they are implicated in all efforts to adjust for pertinent factors in any analysis. See "The Perils of Provocative Statistics," *Public Interest* (Winter, 1991) and the Sears Case Illustration subpage. In my view rarely if ever are efforts to adjust for differences in characteristics fully adjust for such differences. Moreover, observers seem rarely to acknowledge even the obvious shortcoming of such efforts. But, while the failure to adjust for characteristics is commonly a serious problem in analyses of discrimination issues and many other issues, such failure does raise the same issues as to the fundamental unsoundness of analyses of demographic differences as the failure to recognize the ways measures tend to be affected by the prevalence discussed in Part I and the failure to examine the entire universe at issue discussed in Part II.

III. Recommendations

Set out below are a number of recommendations for Commission action to address the issues discussed in Parts I and II and related matters.

First, the Commission should create a committee to explore problems in analyses involving demographic and other differences in outcome rates (including with regard to interpretations of subgroup effects in clinical and non-clinical settings) and to recommend actions to improve such analyses. In accomplishing its tasks, the committee should become familiar with all the materials referenced above and seek informed input from the scientific community.

Second, the Commission should recommend that Congress establish a permanent body charged with appraising the soundness of statistical analyses in matters affecting public policy, including law enforcement. It might be suggested that there already exist such bodies, including the National Academies and the Government Accountability Office. But these and like entities have failed even to recognize that reducing adverse outcomes, whether involving health and healthcare, lending, school discipline, school performance, criminal justice, or any other matter, tends to increase rather than reduce relative differences in rates of experiencing those outcomes. Whether or not a creation of a new entity is necessarily a solution, some action is necessary to ensure that statistical analyses involving important policy issues receive much greater scrutiny than they have in the past.

Third, the Commission should recommend to Congress that it require reports of the agencies involved with funding or conducting statistical analyses involving outcome rates, or involved with law enforcements based on such analyses, describing actions they will take to address the issues discussed in these comments and the materials they reference.

Fourth, the Commission should recommend that Congress require that requests for federal funding of health and healthcare disparities and other research involving differences in outcome rates include statements like the following:

1. We are aware that there exist patterns by which measures commonly employed in this type of research tend to be affected by changes in the prevalence of the outcome examined irrespective of (a) actual changes in differences in the circumstances of advantaged and disadvantaged groups or (b) effects of policies aimed at mitigating those differences.

2. We intend to attempt to distinguish between the effects of the patterns by which measures tend to be affected by the prevalence of an outcome and (a) and (b) in the following manner:

Studies themselves should include at their beginning the following statements:

1. This study has (or has not) attempted to distinguish between the effects of changes in the prevalence of an outcome on the measures employed and (a) actual changes in differences in the circumstances of advantaged and disadvantaged groups (b) effects of policies aimed at mitigating those differences.

2. Because of 1, this study may be (should not be) used to inform policy.

The language can be adjusted to address the situation of research aimed at appraising the effects of factors other than policies on demographic differences. It can also be adjusted to address situations where, rather than examining changes in differences over time, researchers compare the size of some difference within settings differentiated other than temporally (and where the settings differ in the overall prevalence of an outcome).

Similar statements should be required for the continuation of funding already authorized.

Fifth, the Commission should recommend that Congress take all steps necessary to ensure that no federal law enforcement actions are based the belief that reducing the frequency of an adverse outcome tends to increase relative demographic differences in rates of experiencing the outcome or the proportion disadvantaged groups make up of persons experiencing those outcomes.

Sixth, the Commission should recommend that Congress identify all existing legislation (a) that reflects the belief that reducing the frequency of an adverse outcome will tend to reduce relative demographic differences in rates of experiencing the outcome or the proportion disadvantaged groups make up of persons experiencing the outcome; (b) that require the monitoring of demographic differences with regard to some outcome; (c) that impose liability for a practice that has a disparate impact; (d) that require implementation of a less discriminatory alternative to practices having a disparate impact. Congress should then consider options for eliminating any false beliefs reflected in such legislation and for either clarifying how differences and disparate impacts are to be measured or eliminating the requirements.

Seventh, the Commission should recommend that Congress require that federal agencies take the same actions regarding regulations that the prior paragraph suggests Congress take regarding legislation.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0136
Comment on FR Doc # 2016-22002

Submitter Information

Name: Sara Dube

General Comment

The Pew-MacArthur Results First Initiative, a joint effort of The Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation, works with states and counties to implement an innovative evidence-based policymaking approach that helps them invest in policies and programs that are proven to work.

We share the Evidence-Based Policymaking Commission's commitment to bringing data and evidence to the forefront of policymaking. As you consider how to increase support of evidence-building activities at the federal level, we hope that the lessons we have learned working with 22 states and eight counties will be informative to you. We also ask that you keep in mind these state and county efforts already underway and consider how federal policies can best align with and support them.

In our submission we seek to answer the overarching question you posed in the request for comments: "Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking?"

Our response is attached: Attachment 1_Results First Official Comment.pdf

Additional materials attached are:
Attachment 2_Evidence-Based Policymaking Guide for Effective Government.pdf
Attachment 3_Public Administration Review Article.pdf
Attachment 4_New York's Investment in Evidence-Based Policymaking.pdf

Thank you for your time and consideration.

Attachments

Attachment 1_Results First Official Comment

Attachment 2_Evidence-Based Policymaking Guide for Effective Government

Attachment 3_Public Administration Review Article

Attachment 4_New York's Investment in Evidence-Based Policymaking

Overarching Question Posed in Request for Comments

Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

Answer by the Pew-MacArthur Results First Initiative

The Pew-MacArthur Results First Initiative, a joint effort of The Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation, works with states and counties to implement an innovative evidence-based policymaking approach that helps them invest in policies and programs that are proven to work.

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Overview
Through practice and research, we have identified five key components to implementing evidence-based policymaking in a state or county:[1]

- **Program assessment:** Systematically reviewing available evidence on the effectiveness of public programs.
- **Budget development:** Incorporating evidence of program effectiveness into budget and policy decisions, giving funding priority to programs that deliver a high return on investment of public funds.
- **Implementation oversight:** Ensuring that programs are effectively delivered and are faithful to their intended design.
- **Outcome monitoring:** Routinely measuring and reporting outcome data to determine whether interventions are achieving desired results.
- **Targeted evaluation:** Conducting rigorous evaluations of new and untested programs to ensure that they warrant continued funding.

Within this framework, Results First specializes in building the capacity of governments to address the first two components – program assessment and budget development. It does so by training budget and research staff from both legislative and executive branches to:

1) Create a comprehensive inventory of currently funded programs and compare them to the evidence base;
2) Conduct cost-benefit analyses to compare the return on investment of programs; and
3) Use this information to target funds to evidence-based programs and embed evidence into the budgeting and policymaking processes.

In addition, through communications and outreach support, we help states and counties build a climate for decision-making based on research and evidence.[2]

Program Assessment

Results First partners begin their work by developing a comprehensive list of all the programs they fund in a particular policy area; this is called a program inventory. This includes collecting information such as the program name, description, cost, target population, duration, and number served. Creating this kind of comprehensive picture of programs across a policy area is not a simple task because programs are delivered by vast networks of agencies, contracted providers, and local non-profits; as a result, agency budgets contain only aggregated information (e.g., one line item for all substance abuse programs) and do not provide granular program budget information. Results First partners have found program inventories to be valuable as they provide a snapshot of currently funded programs in a specific policy area.

Once all the information is gathered, the next step is to determine if there is any rigorous evidence on the effectiveness of the jurisdiction's programs, and if so, what that evidence indicates. To help partners with this step, Results First developed the Results First Clearinghouse Database. The Clearinghouse Database is a web-based "clearinghouse of clearinghouses." It pulls together the program evidence ratings issued by eight national research clearinghouses, including some that are run by the federal government, such as the U.S. Department of Education's What Works Clearinghouse, the U.S. Substance Abuse and Mental Health Services Administration's National Registry of Evidence-based Programs and Practices, and the U.S. Department of Justice's CrimeSolutions.gov.[3]

The clearinghouses curate evaluation of programs by policy area to provide policymakers and practitioners with the information they need to make evidence-based decisions. This vital information is currently underutilized, largely because each clearinghouse operates independently, uses different nomenclature when reporting results (e.g., rating programs as model, promising, potentially positive, etc.), and has limited capacity to publicize its work.

To use the information to help make better investment choices, policymakers need to be aware that the clearinghouses exist, choose which to consult, find programs of interest, interpret the different ratings, and compare and contrast the findings. The Results First Clearinghouse Database bridges this gap. It reconciles the different systems and vocabularies used by each clearinghouse, and provides the data in a clear, accessible format. It allows users to search more than 1000 programs, by intervention type, policy area, and evidence rating. The Clearinghouse Database is available to the public.[4]

Results First partners incorporate the ratings (or lack thereof) into their program inventories. This allows policymakers and practitioners to know which programs are being offered, whether they have been evaluated, and how effective they are.

For a subset of the programs in the program inventory, Results First partners can also conduct a cost-benefit analysis using the Results First model. This cloud-based model, which is based on the work of the Washington State Institute for Public Policy, uses econometric simulations and

meta-analyses of rigorous evaluations, as well as jurisdiction-specific population and cost data to predict and monetize the return on investment that individual programs can be expected to achieve. The model covers approximately 250 programs across eight social policy areas including adult criminal justice, juvenile justice, substance abuse, mental health, early education, and child welfare. Only programs with a sufficiently rigorous evidence base to allow for computation of effect sizes are included in the model. This model is proprietary to Results First and requires significant technical assistance to utilize correctly, which is why it is only available to Results First partner jurisdictions.[5]

With Results First technical support, state and county teams then customize the cost-benefit model with the required jurisdiction-specific data, including program costs, program duration, resource costs (e.g., cost of a day in prison) and resource use (e.g., number of days in prison). Results First partner states and counties can then use the model to run cost-benefit analyses on their programs to determine expected benefits, costs, and return on investment. Moreover, the model shows the source of the benefits (e.g., higher earnings, less crime, etc.), who the benefits accrue to (taxpayers, participants, or others in society) and how they accrue over time (through a cash flow analysis).

Sample Cost-Benefit Table [6]
(For demonstrative purposes only, not intended to show actual results)

PROGRAM NAME	PROGRAM BUDGET	RATINGS	COSTS	BENEFITS	BENEFIT TO COST RATIO
Correctional industries	$125,000	Highest rated	$1,485	$6,818	**$4.59**
Correctional education	$50,000	Highest rated	$431	$21,720	**$18.40**
Vocational education	$300,000	Second-highest rated	$1,645	$19,594	**$11.91**
Drug courts	$250,000	Second-highest rated	$4,951	$15,361	**$3.10**
Adult boot camps	$180,000	No evidence of effects	—	—	—
Veterans courts	$100,000	Not rated	—	—	—
All others	$950,000	Not rated	—	—	—

Budget Development

When these analyses are incorporated into states' and counties' regular budget processes, policymakers are equipped with a comprehensive view of the investment of taxpayer funds in a particular policy area and the likelihood that those investments will achieve intended outcomes. Legislators and executive branch decision-makers can use this information to consider whether funding should be shifted to programs that have more evidence of effectiveness, or that are predicted to achieve desired outcomes at a lower cost.

However, just because the information is available does not mean that it will be used – increasing the supply of evidence is not the same as creating demand for evidence. This is why, as part of our technical assistance, Results First also helps its partners to reach out to and build the support of policy leaders in the legislative and executive branches, as well as other key stakeholders such as members of the business community. For instance, with Results First staff

support, our jurisdiction partners develop outreach plans for releasing their reports and briefing policymakers.

With sufficient buy-in and commitment from decision-makers, the use of evidence and research can also be embedded in the policymaking process. For instance, legislatures can create statutory definitions of evidence, require agencies to use program inventories and return on investment analyses in their budget proposals, and mandate funding preference to evidence-based programs. Agencies can also incorporate the use evidence into their own processes through administrative policy. Enshrining evidence-based policymaking in these ways helps build consistency and continuity across policymakers and staff, ultimately contributing to the overall culture of using evidence to inform budget and policy decisions.

For example, lawmakers in Mississippi established evidence standards in 2014 and currently require agencies to justify funding requests for any new program by identifying evidence supporting the program's effectiveness. Similarly, New Mexico's Legislative Finance Committee requires rigorous evidence and return on investment information to be considered by staff analyzing budget requests. The state's Corrections Department also adopted contracting standards that require vendors to document their use of evidence-based practices and monitor outcomes for programs that are developed locally to ensure that they meet the state's goals. In addition, New York State's Division of Criminal Justice Services has issued several competitive grants that prioritize funding to programs that are predicted to be effective and generate strong returns.

Conclusion

Throughout the Results First process, our state and county partners develop the capacity to methodically and consistently incorporate evidence into their budget and policymaking practices. To date, Results First partner governments have used the approach to target $186 million to evidence-based programs – a number that we expect will increase over time.

As mentioned at the outset, our work focuses on the first two components of the evidence-based policymaking framework. Assessing program effectiveness and directing funds to evidence-based programs are critical steps, but to truly improve outcomes, programs have to be implemented with fidelity to their design. Plus, outcomes must be monitored and additional programs have to be rigorously evaluated, to build up the evidence base.

Endnotes

[1] For more information on the framework, please see attached report "Evidence-Based Policymaking: A Guide for Effective Government," also available online: http://www.pewtrusts.org/en/research-and-analysis/reports/2014/11/evidence-based-policymaking-a-guide-for-effective-government

[2] For a concise but informative description of Results First work, please see attached case study "Bridging the Gap between Evidence and Policy Makers: A Case Study of The Pew-MacArthur Results First Initiative," published in *Public Administration Review*, June 25, 2016.

[3] Clearinghouses included in the Results First Clearinghouse Database:
- U.S. Department of Education's What Works Clearinghouse

- Blueprints for Healthy Youth Development
- U.S. Department of Justice's CrimeSolutions.gov
- California Evidence-Based Clearinghouse for Child Welfare
- Coalition for Evidence-Based Policy
- U.S. HHS Substance Abuse and Mental Health Services Administration's National Registry of Evidence-based Programs and Practice
- Promising Practices Network
- What Works in Reentry Clearinghouse

[4] You can see the Results First Clearinghouse Database here: http://www.pewtrusts.org/en/multimedia/data-visualizations/2015/results-first-clearinghouse-database

[5] Information on the Results First process for selecting partner jurisdictions: http://www.pewtrusts.org/~/media/assets/2013/results-first-in-your-state-brief.pdf?la=en

[6] For an example of a cost-benefit table produced by a state, see "New York State Results First Program Impact Table" in the Results First New York Case Study, attached and available online: http://www.pewtrusts.org/~/media/assets/2015/11/rf_nys_case_study.pdf

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Evidence-Based Policymaking

A guide for effective government

The Pew Charitable Trusts

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Contents

Overview

Governments make budget and policy choices each year that have long-term effects on both their fiscal futures and the outcomes they deliver for constituents. Recognition is growing that policymakers can achieve substantially better results by using rigorous evidence[1] to inform these decisions, enabling governments to select, fund, and operate public programs more strategically. Until now, however, no comprehensive road map has provided clear guidance on using this approach.

To fill this gap, the Pew-MacArthur Results First Initiative has developed a framework that governments can follow to build and support a system of evidence-based policymaking. Based on an extensive review of research and in-depth interviews with government officials, practitioners, and academic experts, the framework identifies steps that both the executive and legislative branches can take to drive the development, funding, implementation, and monitoring of policies and programs.

The framework has five key components, each with multiple steps that enable governments to make better choices through evidence-based policymaking: (1) program assessment, (2) budget development, (3) implementation oversight, (4) outcome monitoring, and (5) targeted evaluation.

1. **Program assessment**. Systematically review available evidence on the effectiveness of public programs.

   a. Develop an inventory of funded programs.
   b. Categorize programs by their evidence of effectiveness.
   c. Identify programs' potential return on investment.

2. **Budget development**. Incorporate evidence of program effectiveness into budget and policy decisions, giving funding priority to those that deliver a high return on investment of public funds.

   a. Integrate program performance information into the budget development process.
   b. Present information to policymakers in user-friendly formats that facilitate decision-making.
   c. Include relevant studies in budget hearings and committee meetings.
   d. Establish incentives for implementing evidence-based programs and practices.
   e. Build performance requirements into grants and contracts.

3. **Implementation oversight**. Ensure that programs are effectively delivered and are faithful to their intended design.

   a. Establish quality standards to govern program implementation.
   b. Build and maintain capacity for ongoing quality improvement and monitoring of fidelity to program design.
   c. Balance program fidelity requirements with local needs.
   d. Conduct data-driven reviews to improve program performance.

4. **Outcome monitoring**. Routinely measure and report outcome data to determine whether programs are achieving desired results.

   a. Develop meaningful outcome measures for programs, agencies, and the community.
   b. Conduct regular audits of systems for collecting and reporting performance data.
   c. Regularly report performance data to policymakers.

5. **Targeted evaluation**. Conduct rigorous evaluations of new and untested programs to ensure that they warrant continued funding.

    a. Leverage available resources to conduct evaluations.
    b. Target evaluations to high-priority programs.
    c. Make better use of administrative data—information typically collected for operational and compliance purposes—to enhance program evaluations.
    d. Require evaluations as a condition for continued funding for new initiatives.
    e. Develop a centralized repository for program evaluations.

This report discusses how and why evidence-based policymaking is a growing national trend and reviews the framework in detail to provide tips and strategies that policymakers can use to instill evidence in decision-making at all levels of government.

Why evidence-based policymaking?

Evidence-based policymaking uses the best available research and information on program results to guide decisions at all stages of the policy process and in each branch of government. It identifies what works, highlights gaps where evidence of program effectiveness is lacking, enables policymakers to use evidence in budget and policy decisions, and relies on systems to monitor implementation and measure key outcomes, using the information to continually improve program performance. By taking this approach, governments can:

- **Reduce wasteful spending.** By using evidence on program outcomes to inform budget choices, policymakers can identify and eliminate ineffective programs, freeing up dollars for other uses.

- **Expand innovative programs.** Requiring that new and untested programs undergo rigorous evaluation helps determine whether they work and identifies opportunities to target funding to innovative initiatives that deliver better outcomes to residents or reduce costs.

- **Strengthen accountability**. Collecting and reporting data on program operations and outcomes makes it easier to hold agencies, managers, and providers accountable for results.

A new era in responsible governance

Support is growing across the country for using evidence to inform policy and budget decisions and guide the implementation of programs, in good times as well as bad. Although the need to improve government performance has long been recognized, researchers from the Results First Initiative identified several factors that are driving renewed attention to this issue, including ongoing fiscal pressures, the increasing availability of data on program effectiveness, federal funding incentives, and state legislation that support—and in some cases require—the use of evidence-based programs and practices.

Previous attempts to address these challenges by linking program performance to budget allocations—for example, performance-based budgeting—have met with limited success because of insufficient analytical capacity or limited data, among other reasons.[2] Now, with better technology, easier access to data, and the ability to more accurately measure the performance and cost-effectiveness of government services, policymakers have an opportunity to put their jurisdictions on a sustained path of evidence-based decision-making.

Ongoing fiscal pressures

In recent years, many governments were forced to make major budget reductions due to revenue shortfalls that occurred during the Great Recession. Although some states have seen tax revenue rebound, others continue to confront tight budgets due to lagging revenue, increasing costs in areas such as Medicaid, and other pressures.[3] Many governments at both the state and local levels also face long-term fiscal challenges, such as meeting retirement benefit obligations for public employees.[4] This has increased demands by policymakers for better information on the outcomes that programs deliver for constituents and better tools to identify activities that fail to deliver desired results.

Increasing availability of evidence on what works

Over the past two decades, a growing body of research has evaluated the effectiveness of public programs. Multiple clearinghouses are compiling this information by reviewing and categorizing hundreds of research studies to identify effective and promising programs across a range of policy areas.[5] As a result, policymakers have access to more information about what works than ever before.[6] States and local governments can avoid duplication of effort and use this evidence to inform their policy and budget decisions.

Federal funding incentives

Increasingly, federal grant recipients, including states and localities, are required to target federal funds to evidence-based programs. Since 2009, for example, the U.S. departments of Education, Health and Human Services, and Labor have directed approximately $5.5 billion to seven initiatives that support proven programs.[7] Although they represent only a small percentage of total federal spending, these grants provide incentives for recipients to implement proven programs.[8] These include the Investing in Innovation (i3) Fund, which prioritizes education programs with strong evidence of effectiveness and evaluation of innovative programs; the Maternal and Infant Early Childhood Home Visiting program, which requires grantees to direct 75 percent of federal dollars to evidence-based programs and to evaluate the impact on key outcomes; and the Workforce Innovation Fund, which supports projects that use data to design new approaches to improving employment and training outcomes.[9]

Growing interest from state leaders

State policymakers are using legislation as a vehicle to encourage investment in programs that have been proved effective. Results First researchers identified over 100 state laws across 42 states passed between 2004 and 2014 that support the use of evidence-based programs and practices.[10] These laws provide incentives for agencies to implement proven programs and help establish common standards with which to compare programs.

State leaders are also using cost-benefit analysis to inform their policy and spending decisions. A recent Results First study found that the number of states assessing the costs and benefits of programs and policy options increased 48 percent between 2008 and 2011, and 29 states reported using cost-benefit studies to inform policy or budget decisions.[11] In addition, since 2011, 16 states and four California counties have partnered with the Results First Initiative to apply a customized, innovative cost-benefit approach to policy and budget decision-making.

Key components of evidence-based policymaking

Results First researchers identified five key components that support a system of evidence-based policymaking (see Figure 1). In developing this report, our research found that while many states have put one or more of these in place, none has developed a comprehensive approach across all branches of government. For each of the components, our framework includes specific steps that help to ensure successful implementation. Governments may lack capacity to implement all of the elements at once, but they can still strengthen their use of evidence-based policymaking by focusing on particular features highlighted in this report.
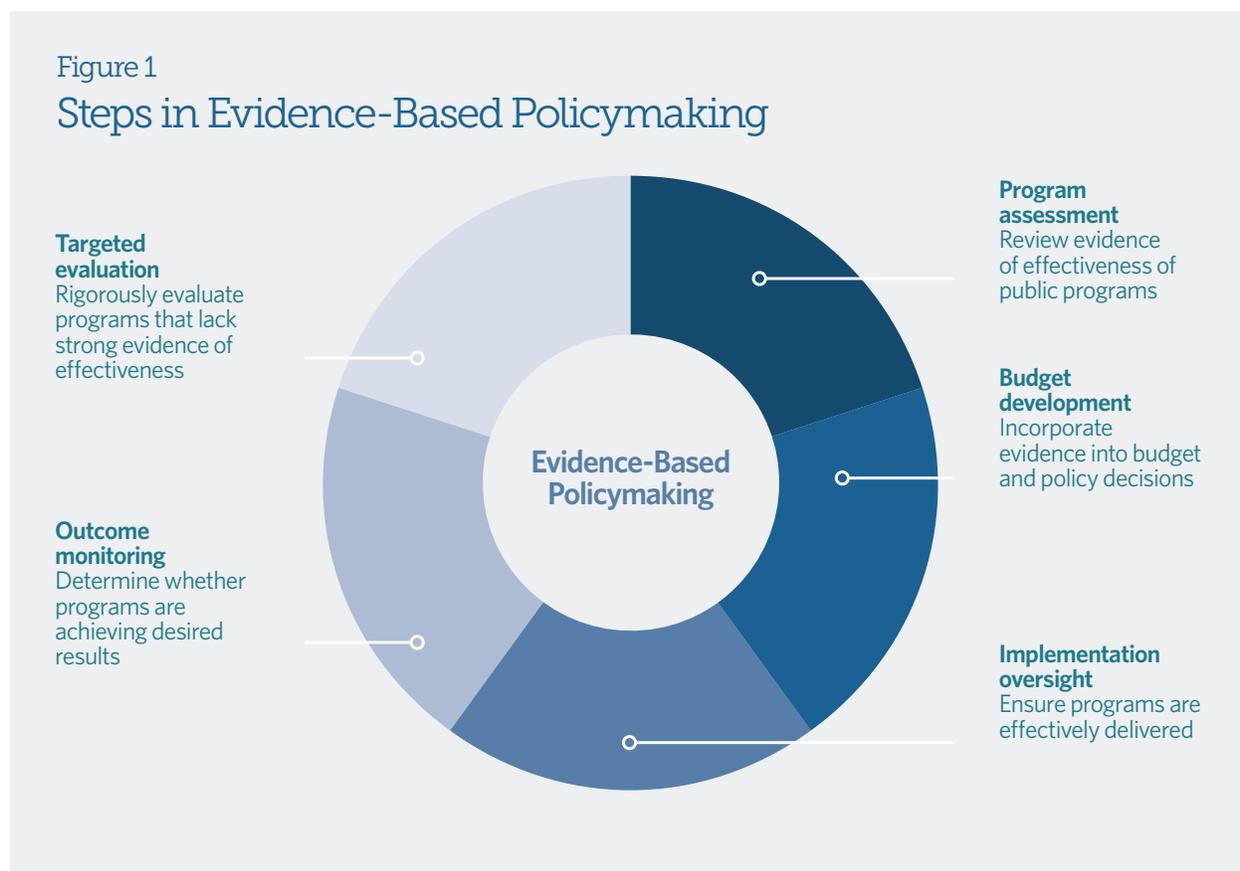
Figure 1

Steps in Evidence-Based Policymaking

Targeted evaluation
Rigorously evaluate programs that lack strong evidence of effectiveness

Outcome monitoring
Determine whether programs are achieving desired results

Evidence-Based Policymaking

Program assessment
Review evidence of effectiveness of public programs

Budget development
Incorporate evidence into budget and policy decisions

Implementation oversight
Ensure programs are effectively delivered

Program assessment. Systematically review available evidence on the effectiveness of public programs

Government leaders should develop an inventory of the programs they currently operate and then assess the available evidence of effectiveness and return on investment for each one. This provides important baseline information that enables government leaders to identify which programs are working and achieving high returns on taxpayer dollars, which need further evaluation, and which are not delivering expected outcomes (see Appendix B: Potential roles in state government).

Develop an inventory of funded programs

Many state and local governments do not have a complete catalog of the programs they fund, which is a necessary starting point for determining which are effective and which are not. Government leaders can require agencies to conduct a census to identify all publicly operated and contracted programs and collect standard information about each, including their funding levels, services delivered, and populations served. To help facilitate this process, governments often find it beneficial to develop a common definition of "program" to provide consistency across agencies.

In 2014, Rhode Island's Office of Management and Budget worked with the state's departments of Corrections and Children, Youth, and Families and the judiciary to develop an inventory of 58 state-funded programs intended to reduce recidivism in adult and juvenile justice systems. In its initial report, published in March 2014, the office found that 33 percent of the programs inventoried were not evidence-based, and only two had been recently evaluated to determine whether they were implemented according to research-based standards. As a result of this process, the office recommended additional evaluations to ensure fidelity to these standards.[12]

Categorize programs by their evidence of effectiveness

Policymakers need clear information about the effectiveness of the programs they fund. By requiring agencies to categorize the programs they operate according to the rigor of their evidence of effectiveness, lawmakers and agency leaders can ensure they have access to the information they need to make this determination. A first step is to develop definitions for each category, based on the strength of evidence. For example, some states use "evidence-based programs," which may be defined as requiring multiple evaluations that use rigorous methods such as randomized controlled trials. A second is "promising programs," which may include those that have been evaluated and shown effective but through a less rigorous research design. State or local governments can use resources from national clearinghouses or other states in developing these definitions.

Embedding such standards of evidence in statute can increase the likelihood that they will be enforced consistently and endure political changes. In 2012, Washington passed legislation to increase the number of evidence-based children's mental health, child welfare, and juvenile justice services.[13] The law has three key requirements:

1. The Washington State Institute for Public Policy and the University of Washington Evidence-Based Practice Institute, in consultation with the Department of Social and Health Services, will publish definitions of "evidence-based," "research-based," and "promising practices." To be considered an evidence-based program, the law requires that the benefits produced outweigh its cost. In addition, the institute and the university will review existing national and international research to identify programs that meet the criteria based on these definitions.

2. The state's Department of Social and Health Services and the Health Care Authority will complete a baseline assessment of evidence- and research-based practices in child welfare, juvenile rehabilitation, and children's mental health services. This includes the extent to which currently funded programs meet the standards of evidence, the utilization of those services, and the amount of funding received by each program.

3. The Department of Social and Health Services and the Health Care Authority must report to the governor and Legislature on strategies, timelines, and costs for increasing the use of evidence- and research-based practices.

In 2014, Mississippi passed similar legislation mandating that its Legislative Budget Office and Joint Committee on Performance Evaluation and Expenditure Review, known as PEER, categorize programs in four state agencies as evidence-based, research-based, promising practices, or other programs and activities with no evidence of effectiveness.[14] The legislation includes definitions of each evidence level to guide the work of the budget office and PEER.

Leveraging National Research Clearinghouses

In recent years, several national research clearinghouses have been established that conduct systematic literature reviews to identify effective public programs across a range of policy areas, including adult criminal and juvenile justice, child welfare, mental health, pre-K to higher education, and substance abuse.[*] Although the clearinghouses use slightly different criteria for evaluating the strength of evidence, most have adopted a tiered structure that allows researchers and policymakers to easily determine the relative effectiveness of each program. For example, the What Works Clearinghouse, an initiative of the U.S. Department of Education's Institute of Education Sciences, uses a system of recognizable symbols to convey this information: two plusses mean a program has positive effects, while an oval means there is no evidence of an effect on outcomes.[†] The What Works Clearinghouse has rated the impact of approximately 130 education programs on 26 educational outcomes.

Policymakers and agency leaders can use these clearinghouses to compare the programs that their state or locality operates to those the clearinghouses have deemed to be effective. For example, a state might find that only a small percentage of its adult criminal justice programs had nationally recognized evidence of positive outcomes, which would raise questions about whether the remaining programs should continue to receive funding.[‡]

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* There are several widely recognized national research clearinghouses, including the U.S. Department of Education's What Works Clearinghouse, the U.S. Department of Justice's CrimeSolutions.gov, Blueprints for Healthy Youth Development, the Substance Abuse and Mental Health Services Administration's National Registry of Evidence-Based Programs and Practices, the California Evidence-Based Clearinghouse for Child Welfare, What Works in Reentry, and the Coalition for Evidence-Based Policy.

† What Works Clearinghouse, U.S. Department of Education Institute of Education Sciences, accessed July 29, 2014, http://ies.ed.gov/ncee/wwc/findwhatworks.aspx.

‡ The Pew-MacArthur Results First Initiative recently created a central database that compiles information from eight research clearinghouses to enable policymakers and their staffs to readily identify effective, evidence-based programs in multiple policy areas, including adult criminal justice, juvenile justice, mental health, substance abuse, early education, K-12 education, and child welfare. For more information, please see: http://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2014/09/results-first-clearinghouse-database.

Getty Images/Sam Edwards

> Over the past two fiscal years, five states—Iowa, Massachusetts, New Mexico, New York, and Vermont—have used the Results First model to target $81 million in funding to more effective programs that the model shows will achieve higher returns.

Identify programs' potential return on investment

In addition to knowing whether programs have been rigorously evaluated, it is also important for government leaders to know if investing in them would generate enough benefits to justify their costs. Governments can use cost-benefit and cost-effectiveness analyses to answer this question. These studies calculate the dollar value of the outcomes that different programs achieve and weigh them against the costs. Conducting such analyses requires technical expertise and extensive fiscal and outcome data and may not be practicable for all programs. When feasible, however, this approach enables governments to rank programs by their potential return on investment, providing policymakers with critical information on which alternatives can achieve the greatest returns for constituents.

The Pew-MacArthur Results First Initiative is working with 16 states and four counties to implement cost-benefit analysis models that enable policymakers to use this approach in their budget and policy decisions. Results First uses a nationally recognized, peer-reviewed model and a three-step process:

1. Employ the best national research on program outcomes to identify what works, what doesn't, and how effective various alternatives are in achieving policy goals.

2. Apply jurisdiction-specific data to predict the impact each program would achieve.

3. Compare the costs of each program to its projected benefits and produce a report that ranks each alternative by the relative value it would generate for taxpayers.

Over the past two fiscal years, five states—Iowa, Massachusetts, New Mexico, New York, and Vermont—have used the Results First model to target $81 million in funding to more effective programs that the model shows will achieve higher returns.[15]

Budget development. Incorporate evidence of program effectiveness into budget and policy decisions, giving funding priority to those that deliver a high return on investment of public funds

For evidence-based policymaking to be successful, governments must systematically use evidence of program effectiveness to inform their processes for making budget and policy decisions. This requires regular communication between researchers, budget staff, and policymakers as well as the development of strong executive and legislative champions. Analytic results must be reported to policymakers in timely and accessible ways.

Integrate program performance information into the budget development process

Executive branch agencies should use performance information when developing their budgets to ensure funds are directed to programs that have strong evidence of effectiveness and away from those that are not delivering results. To accomplish this, agencies can develop output and outcome measures for all major programs and report those metrics in their budget requests. Agencies should develop numerical performance targets that can be used by policymakers to measure progress against key benchmarks and goals. For evidence-based programs, the targets should reflect outcomes predicted by research.

A well-functioning performance measurement system can help governments decide where to pull back on funding as well as where to provide greater support. Connecticut's Result-Based Accountability system has been operating for eight years and has become an important part of the state's appropriations process. When outcome measures showed that the state's $20 million annual investment in early reading programs was having no positive effect on reading skills, they were first denied funding and later analyzed in-depth to identify potential solutions. The study found that reading specialists, a central element of the initiative, lacked sufficient training to achieve expected results and that funding to support early reading efforts was often used for other purposes. Based on this, the state has turned to other approaches, such as adding reading-related graduation requirements for education degrees and implementing techniques based on a reading program in Norwalk that has had success. "Our reading scores are now creeping up instead of going down," said Representative Diana Urban, co-chair of the Connecticut General Assembly's Select Committee on Children.[16]

Present information to policymakers in user-friendly formats that facilitate decision-making

To increase the likelihood that policymakers will use evidence to inform critical budget decisions, complex information must be presented in ways they can readily understand and act on. For any program, policymakers need answers to at least three important questions:

- Is the program working?

- Do its benefits outweigh its costs?

- How does the program compare to alternative programs?

To provide this information, agencies can produce annual rankings that compare programs targeting similar outcomes based on effectiveness, cost, and benefits produced. When practicable, governments can use cost-benefit analyses to calculate a return on investment for each program, providing policymakers with data on how to best allocate resources to achieve each agency's goals.[17] At a minimum, policy staff should compare programs with common goals according to their documented impact on specific outcomes—for example comparing a set of programs that all have as their primary goal reducing child abuse and neglect.

> When practicable, contracts and grants should include performance goals that encourage organizations to provide evidence-based programs and to implement those services as designed.

Several states, including Washington, Iowa, and New Mexico, have developed *Consumer Reports*-type analyses, which rank programs by their benefit-to-cost ratios.[18] In 2012, the Iowa Department of Corrections issued a report highlighting the costs and benefits of various criminal justice programs over a 10-year period.[19] The analysis showed that among prison-based programs, cognitive behavioral therapy programs were inexpensive to operate and highly effective in reducing recidivism, returning $37.70 in benefits for every dollar spent. In contrast, correctional educational programs, although also effective, returned only $2.91 in benefits per dollar invested.[20] As a result, the department is considering expanding its cognitive behavioral therapy programs and plans to reduce other, less effective activities proportionally.

Include relevant studies in budget hearings and committee meetings

Policymakers can use executive and legislative budget hearings and committee meetings as opportunities to discuss key findings from program evaluations, audits, cost-benefit analyses, and other research. Governments can establish procedures requiring research offices to provide relevant reports to budget and policy committees, which should, in turn, be encouraged to consider the findings in their deliberations.

The New Mexico Legislative Finance Committee regularly presents program evaluations, agency performance report cards, and cost-benefit analyses during budget hearings and committee meetings to support its budget and legislative recommendations. In 2013, for example, the committee presented a report in budget hearings showing that reducing recidivism by 10 percent using proven programs could save the state $8.3 million in prison costs and approximately $40 million in avoided costs to victims.[21] The findings, in addition to other analyses, helped inform decisions to allocate $7.7 million to effective criminal justice programs.

Establish incentives for implementing evidence-based programs and practices

Governments can use grant competitions to encourage adoption or expansion of evidence-based programs. Agencies can also partner with private philanthropies or businesses to scale up promising programs—those that demonstrate the potential to achieve a positive return on investment.

Wisconsin's Treatment Alternatives and Diversion grant program provides funding to counties to implement data-driven alternatives to prosecution and incarceration of criminal offenders with a history of substance abuse. A county is eligible for a grant if, among other criteria, the services provided are consistent with evidence-based practices. Between 2006 and 2013, these grants funded nine county diversion or drug court programs. A recent evaluation found that grant-funded projects averted 231,533 incarceration days for offenders, 57 percent of whom were not convicted of a new crime three years after being discharged from the program.[22]

Governments can also develop pay-for-success models and social impact bond agreements, both of which raise capital from private investors or philanthropic organizations to scale up programs that have the potential to achieve better outcomes and save the government money. Although these efforts are still in their infancy, several states, including Massachusetts and New York, are moving forward with plans to provide incentives for data-driven programming.

New York raised $13.5 million through its social impact bond to support the Center for Employment Opportunities, which provides evidence-based employment services to ex-offenders including job training, transitional employment, and job placement. Bank of America Merrill Lynch (BAML) and Social Finance Inc. raised funding from more than 40 individual and philanthropic investors, which included several BAML clients, as well as foundations, among them the Laura and John Arnold Foundation and the Robin Hood Foundation. The Rockefeller Foundation agreed to guarantee up to 10 percent of the investors' principal. An independent evaluator will determine whether the program is reaching its goals of reducing recidivism and increasing employment.[23] The state will repay investors only if the outcomes outlined in the bond agreement are achieved.

Build performance requirements into grants and contracts

When practicable, contracts and grants should include performance goals that encourage organizations to provide evidence-based programs and to implement those services as designed. To realize the benefits of performance-based contracts, program administrators should work closely with providers and program developers to create measures that accurately gauge performance, while striking a balance between the need for accountability and the importance of continuous quality improvement and increased capacity. These contracts need to be carefully crafted and monitored to protect against unintended consequences, such as creating incentives for providers to take only those clients most likely to succeed and to reject those considered high-risk.

In the early 2000s, the Connecticut Judicial Branch's Support Services Division, which oversees state-run juvenile justice programs, developed a Center for Best Practices to review research on evidence-based interventions and integrate effective strategies into current programs, most of which were contracted out.[24] The center determined that several programs were achieving poor outcomes, and the division began working with contractors to identify the aspects of service delivery that yielded desired outcomes and to incorporate those elements into their contracts. Through this process, the division developed a standard report card, which includes performance data and other quality assurance information, that is updated semiannually and is reported to the Legislature each year. Division staff members also meet quarterly with contractors to review performance data, identify areas for improvement, and determine technical assistance needs.[25]

When properly designed, performance-based contracts can help move agencies away from a fee-for-service model, which pays providers for the amount of services they deliver, toward a system that rewards results. For example, in Tennessee, under more traditional fee-for-service contracting methods, foster care providers that were most successful in finding permanent homes for children could suffer financially because the children no longer needed their services. In contrast, the state's pay-for-success program, which was introduced in 2009, provides contracts that pay more to agencies that achieve permanent placements for children. Over a five-year period, this helped reduce the time children spent in foster care by 235,000 days and saved $20 million, which has been reinvested to further improve services.[26]

Implementation oversight. Ensure that programs are effectively delivered and are faithful to their intended design

The quality of program implementation can dramatically affect outcomes: Even the most effectively designed interventions can produce poor results when poorly run. To ensure proper implementation, governments should establish strong monitoring systems that assess all funded programs, including those administered by nongovernmental entities. This monitoring should ensure that evidence-based programs are carried out with fidelity to their design and incorporate the elements that are critical to their effectiveness, and it should include processes that improve quality by using information gathered through monitoring to make adjustments that improve performance.

Too often, program support and oversight is one of the first areas cut when budgets are tight, resulting in inadequate implementation and poor outcomes. To sustain the positive results, policymakers should include funding for support and monitoring in the base budgets of programs. Then, if budgets are reduced, effective services can still be delivered to high-need clients, which is preferable to serving more people ineffectively by poorly implemented programs.

Establish quality standards to govern program implementation

Broad-based implementation standards can promote the consistent delivery of high-quality services by providing baseline requirements for monitoring and oversight. These criteria should also be included in agency contracts to help ensure that providers understand and comply with expectations. Evidence-based programs frequently have detailed implementation manuals that managers can use to set quality standards.

For example, state leaders tasked the Washington State Institute for Public Policy with developing standards to implement evidence-based juvenile justice programs after an evaluation found that sites where the programs were not implemented with fidelity had poor results.[27] The standards address four key elements of quality assurance—program oversight, provider development and evaluation, corrective action, and ongoing outcome evaluation—and include protocols for hiring, staff training and assessment, and management and oversight of service delivery. Providers are required to undergo an initial probationary period during which they receive training and feedback. Thereafter they are evaluated annually. The state regularly monitors program completion and recidivism rates for juveniles who receive certain services. The implementation standards are credited with helping the state achieve greater reductions in crime and juvenile arrest rates compared with the national average and a decrease of more than 50 percent in youth held in state institutions.[28]

Build and maintain capacity for ongoing quality improvement and monitoring of fidelity to program design

Governments can support effective implementation by offering—or partnering with organizations that offer—training, technical assistance, and other services to program providers. They can also offer infrastructure support, including computer systems that facilitate data collection and outcome reporting. Some nationally recognized evidence-based programs also provide training or technical assistance services to assist implementation.

The Evidence-based Prevention and Intervention Support Center, or EPISCenter, provides technical assistance to communities and service providers in Pennsylvania to support the implementation of evidence-based prevention and intervention programs.[29] Since 2008, the center has assisted in the establishment of nearly 300 evidence-based programs in more than 120 communities throughout the state.[30] The center is a collaborative partnership among the Pennsylvania Commission on Crime and Delinquency and Penn State University. It receives funding and support from the commission and from the Pennsylvania Department of Public Welfare. Experts from the center provide technical assistance to local staff on implementation, evaluation, and sustainability and help develop the infrastructure to monitor the program for fidelity to its original design. Over time, providers build internal capacity for these operations and many continue to report data to the EPISCenter even after their initial funding has ended. These efforts have been highly beneficial.

Balance program fidelity requirements with local needs

Many evidence-based programs have identified the key service elements that are critical to achieving desired outcomes but they also note that some services may need to be modified for local conditions. Administrators monitoring programs should ensure that key elements are implemented with fidelity while allowing other features

to be adapted to meet community and cultural differences. Administrators, program developers, and service providers should work together to ensure that program adaptations do not negatively affect outcomes.

In 2009, the Oregon Legislature passed a bill to utilize the nationally recognized "Wraparound" system of care for emotionally disturbed and mentally ill children, with statewide programs in place by 2015.[31] A fundamental part of Oregon Wraparound is fidelity monitoring, overseen by the Oregon Department of Human Services. The National Wraparound Initiative has provided assessment tools to ensure that programs remain faithful to its 10 basic principles. However, administrators may adapt other services to local conditions and needs, which can vary across the state. "The goal is to meet communities where they are so that this is sustainable. Whatever you're building needs to be part of the community you're working with. You maintain the fidelity of the model, but ensure that it's tailored to the community," says William Baney, director of the Systems of Care Institute, at Portland State University's Center for Improvement of Child & Family Services, which provides training and systems support to Oregon Wraparound.[32]

> " The goal is to meet communities where they are so that this is sustainable. Whatever you're building needs to be part of the community you're working with. You maintain the fidelity of the model, but ensure that it's tailored to the community."
>
> **William Baney,** *director of the Systems of Care Institute at Portland State University's Center for Improvement of Child & Family Services*

Conduct data-driven reviews to improve program performance

Regularly scheduled data-driven performance management meetings enable agency and state leaders to discuss performance data, develop or refine performance objectives, identify areas for improvement, promote innovative strategies, foster coordination, and hold managers accountable for results.[33] Agencies should hold similar meetings with their staffs and service providers to pinpoint opportunities for improvement and address performance barriers.

This approach was developed by the New York City Police Department and popularized by the city of Baltimore through CitiStat. The CitiStat model allowed Baltimore leaders to focus on performance goals, improve service delivery, and generate $350 million in savings over a seven-year period, enabling it to reinvest $54 million in new programming for children.[34]

Using a similar approach, Maryland StateStat measures statewide performance and tracks key indicators from biweekly agency data, which are analyzed for trends to inform strategies for improvement. Regular meetings are held with the governor, agency heads, and StateStat staff to clarify goals, refine approaches for achieving outcomes, and track performance.[35] This use of data has engendered a culture of organizational learning in which program managers and agency leaders discuss challenges and solve problems.

Aligning Existing Services With Key Elements of Evidence-Based Programs

Governments can often improve the outcomes from programs that are not evidence-based by aligning their key characteristics with those that are. For example, a locally developed program for juvenile offenders may be able to improve its results by incorporating features of programs that research shows are highly effective in reducing recidivism.

The Standardized Program Evaluation Protocol, or SPEP, developed by the Peabody Research Institute at Vanderbilt University, provides a standardized measure to determine how closely a particular program conforms to the most effective practices, according to scientific research, in juvenile justice.[*] The tool assesses programs in four primary areas that research has identified as critical to effectiveness, including the primary service provided, the quantity of service, the quality of delivery, and the risk level of the juveniles served. The tool is currently being implemented in three jurisdictions—Milwaukee County, Wisconsin, and in Iowa and Delaware. They are part of the federal Office of Juvenile Justice and Delinquency Prevention's Juvenile Justice Reform and Reinvestment Initiative, established to support improvements to current service delivery models.[†] The information gathered through the tool is used by states and localities to improve existing juvenile justice services and align them with evidence-based practices without having to redesign entire service systems. Arizona and North Carolina have also used the SPEP tool to assess the effectiveness of their juvenile justice programs, and initial data show that larger reductions in recidivism correlated with higher SPEP ratings.

"The SPEP tool allows states to look at programs that may not be name brand, but to determine whether they have the common elements that research suggests works," says Mark Lipsey, Ph.D., director of the Peabody Research Institute.[‡] "From a practical standpoint, in some policy areas there are relatively few evidence-based programs; they can be expensive and require significant training to get providers up to speed. We see our approach as complementary with model programs which are also part of our scheme, but it allows states to look at a broader set of programs."

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[*]   Peabody Research Institute, "Standardized Program Evaluation Protocol," accessed July 29, 2014, https://my.vanderbilt.edu/spep. The protocol was developed by Mark Lipsey, Ph.D., of the Peabody Research Institute, Vanderbilt University.

[†]   Shay Bilchik and Kristen Kracke, "How Do You Scale Evidence-Based Programs: A look at OJJDP's Juvenile Justice Reform and Reinvestment Initiative," *Cost-Benefit Knowledge Bank on Criminal Justice*, (Dec. 4, 2013), accessed July 29, 2014, http://cbkb.org/2013/12/how-do-you-scale-evidence-based-programs-a-look-at-ojjdps-juvenile-justice-reform-and-reinvestment-initiative.

[‡]   Pew-MacArthur Results First Initiative interview with Mark Lipsey, director, Peabody Research Institute, Vanderbilt University, Jan. 8, 2014.

Outcome monitoring. Routinely measure and report outcome data to determine whether programs are achieving desired results

Many governments have made significant investments to build and implement performance reporting systems, but these too often focus on outputs, such as the number of programs provided or clients served, rather than results, such as reduced recidivism or increased graduation rates, and are of limited use to policymakers. Governments should make sure that performance measurement systems collect and report essential outcome data for all major programs.

Develop meaningful outcome measures for programs, agencies, and the community

Performance monitoring systems should provide output and outcome data that meet the information needs of various stakeholders, including program administrators, policymakers, and constituents. For example:

- Administrators can monitor operations by using data on program outputs, such as the number of families served, the percentage of families achieving program milestones, and the caseloads of field staff.

- Agency leaders can use intermediate outcome data to assess progress toward key goals, such as reducing the percentage of participating mothers who deliver low-birth-weight babies.

- Policymakers and constituents can use measures that gauge long-term trends, such as the percentage of children graduating from high school, to determine whether public programs are achieving their overall objectives.

For example, Virginia Performs is an interactive, publicly available database that collects and reports performance data on a wide range of government functions at multiple levels—including program, agency, department, and cross-cutting strategic government priority—and for diverse audiences such as program administrators, agency leadership, policymakers, and the public. As part of Virginia's strategic planning process, state agencies identify performance measures, which are then tracked through the Virginia Performs system.[36] These data are one set of inputs used to generate the annual Virginia Report, a balanced accountability scorecard created by the bipartisan Council on Virginia's Future, which is headed by the governor.[37] Where data are available, Virginia's performance is compared with the national average, the top performing state in the nation, and three similar states. The data allow users to consider high-level strategic goals and a wide range of performance indicators at the department, agency, and program levels.

When determining what measures to track, governments can consult resources available from several national organizations. For example, in 2012, the Federal Department of Housing and Urban Development launched the Healthy Communities Transformation Initiative to provide governments with the tools to assess the "physical, social, and economic roots of community health." The initiative's first deliverable, a collection of 28 key indicators that governments can use to track outcomes across 10 policy domains, was created following review of existing models and is now being tested in select jurisdictions. Many of the indicators can be derived from publicly available data and customized by state, municipality, or neighborhood.[38]

Agencies can also visit the national clearinghouses to identify the outcomes predicted for various programs by rigorous research and use those findings to set performance targets for funded programs. Governments can require programs that lack strong evidence of effectiveness to develop theories of change or logic models that specify their expected results and can then use this information to establish outcome measures and performance targets for those programs.

Using 'Benchmarking' to Gauge Performance

Many governments are also using benchmarking—comparing their program outcomes with those achieved in other jurisdictions—as a way to assess performance. One example of this is the National Core Indicators project, which over the last decade has developed common sets of outcome measures, including some 60 indicators measuring personal, family, and health and safety, that states can use to gauge the effectiveness of the services they provide to developmentally disabled individuals. Currently, 40 states and the District of Columbia participate, with the remaining 10 expected to join by 2017.

Individual states have used the data to focus attention on problem areas. For example, policymakers in Kentucky found that employment of its adult-with-developmental-disabilities population trailed the national average substantially—18.5 percent compared with 37.8 percent.* At the same time, National Core Indicators data showed the importance of employment for improving quality of life, including better relationships, increased exercise, and greater participation in community activities. This information spurred a number of strategies in Kentucky to effect change: a revision of Medicaid waivers, an emphasis on employment in communications developed by state agencies, more staff training, and an increase in the hourly rate for supported employment.

* National Core Indicators Project, "NCI Adult Consumer Survey Outcomes: Kentucky Report 2011-2012 Data," http://www.nationalcoreindicators.org/states/KY.

Performance measures also should periodically be examined to ensure they still serve as reliable indicators of success. For contracted services, governments should ensure that providers collect and report common outcome metrics so that officials can compare performance and aggregate the overall program effects.

Conduct regular audits of systems for collecting and reporting performance data

Effective performance measurement systems should be user-friendly and provide data that meet the needs of multiple stakeholders. Even the best-designed system, however, will be of little value if the reported data are inaccurate or misleading. Governments should provide training to agency staff and contracted providers on how to collect, analyze, and report performance data, and develop processes for regularly verifying that these data are accurate.

Performance measurement systems can easily fall into disuse without strong leadership supporting them or adequate training for providers and agency personnel. In 2012, Louisiana's auditors confronted this issue during a review of the state's performance budgeting system, once considered a model program.[39] The audit noted that many statutory processes were no longer being followed and that reported information was not being used to inform budget decisions. The findings emphasized the need to increase awareness of the system, improve how performance data were presented to policymakers, and ensure reliability. The report also noted the importance of

training, for both legislative and agency staff, on using the system. "State agencies have all of this data but do not necessarily have the tools or the skill set to analyze the data and use it for performance management purposes," says Karen LeBlanc, performance audit manager at the Louisiana Legislative Auditor's office.

Regularly report performance data to policymakers

Performance data can be a valuable tool for managing, overseeing, and assessing the value of programs, but it is critical to provide the information to policymakers on a regular basis, in easy-to-digest formats that highlight key findings, and readily translate to budget and policy decision-making. Several state and local governments have developed report card systems that focus on agency or program performance on key outcomes. Report card data are often reported through public websites and may be presented to policymakers through regular hearings and meetings. Data dashboards, interactive business tools that display a set of performance indicators, can also be beneficial in tracking and focusing on high-level outcomes in real time.

In Michigan, for example, a frequently updated performance dashboard provides past and current data on a variety of indicators relevant to the administration's key policy objectives, including economic strength, health and education, quality of life, and public safety.[40] Policymakers and the public can quickly see which programs are succeeding or struggling based on simple graphics such as a green "thumbs up" for progress and a red "thumbs down" for a lack of achievement. For example, in spring 2014, third-grade reading test scores were slowly continuing to trend upward. The dashboard featured this information using a graph showing proficiency increasing from 63.5 percent in fiscal year 2011 to 70 percent three years later. On the other hand, the dashboard provided a warning signal that the self-reported percentage of students being bullied rose from 22.7 percent in 2011 to 25 percent in 2013.[41]

Targeted evaluation. Conduct rigorous evaluations of new and untested programs to ensure that they warrant continued funding

Programs with little or no evidence of effectiveness carry a higher risk of yielding poor outcomes. Governments should therefore direct evaluation resources to programs that lack rigorous outcome data, receive significant funding, or pose other risks in order to ensure they are delivering desired results and that further support is warranted.

Governments should also allocate funding for evaluation to limit the risk that investments are made in programs that do not work or that are less effective over time. Rather than assuming that programs can find money within existing budgets, governments should dedicate resources for this purpose once existing evaluation capacity and expertise have been maximized.

Leverage available resources to conduct evaluations

Almost all states have offices that conduct program evaluations and performance audits, and these can provide unbiased information to help policymakers assess program effectiveness. Governments should develop an inventory of their resources and dedicate at least a portion of them to conducting rigorous outcome evaluations.

For example, legislative audit and research offices can be a critical resource in conducting independent program evaluations, but historically much of their work has focused on assessing compliance and management issues rather than outcomes. Legislators can work with these offices as they set their research agendas to identify opportunities to dedicate a larger portion of their resources to determining whether programs are achieving desired results.

Target evaluations to high-priority programs

No government has the capacity to regularly evaluate all of its funded programs, so it is important to set priorities. Governments can develop a list of programs to be evaluated, weighing factors such as the program's purpose, existing evidence of effectiveness, spending level, potential for cost savings, and risk of poor outcomes.

Make better use of administrative data—information typically collected for operational and compliance purposes—to enhance program evaluations

Over the past decade, researchers have made significant advances in using existing data sources to conduct rigorous program evaluations, for example, linking education, child welfare, and juvenile and criminal justice records to determine child outcomes.[42] Because much of this information is already collected for other administrative purposes, the costs are much lower than more traditional program evaluations.

For example, Hawaii's Opportunity Probation with Enforcement program, a supervision program for offenders at high risk for probation violation, was evaluated in a randomized controlled trial using existing administrative data sources. The state's existing probation case-management system included records on supervision activities, drug test results, offenses, and other probationer interactions with the criminal justice system, and the Criminal Justice Information System provided comprehensive criminal record data. By linking these data sources, the evaluation was able to determine that the program was effective in reducing recidivism. Participants were 55 percent less likely to be rearrested and 53 percent less likely to have their probation revoked compared with high-risk offenders who did not participate in the program.[43]

Require evaluations as a condition for continued funding for new initiatives

Governments frequently operate small-scale programs as a way to test innovations before fully implementing them. When designing these programs, governments should specify the desired results to help managers and evaluators focus on specific objectives, and before financial support is renewed, outcome studies should be required to determine whether tested programs are effective.

In New York City, the Center for Economic Opportunity requires rigorous evaluations of all pilot programs to determine whether they were effective in achieving one or more of three primary goals: reducing poverty, encouraging savings, or empowering low-income workers to advance their careers. Center staff oversee monitoring and evaluation activities, working in partnership with city agencies and external research organizations. The center uses the results to help determine whether to expand or discontinue each program.[44]

Develop a centralized repository for program evaluations

As noted earlier, several national research clearinghouses are reviewing studies to identify what works in public programming across policy areas. Governments can support these efforts by designating a central entity to house the studies they conduct and requiring all agencies to submit copies of outcome evaluations and performance audits. This agency or unit should screen the reports, identify significant outcome findings, and incorporate the information into a comprehensive list of local programs. Governments can also report these studies to the national research clearinghouses to help expand the available knowledge base and help governments across the country more effectively direct funding to programs that have demonstrated strong results for residents.

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Conclusion

Government leaders are increasingly using rigorous evidence to identify policies and programs that work and are cost-effective. To date, however, policymakers had no comprehensive road map to guide them in this endeavor. The framework presented in this report identifies the steps that all levels and branches of government can take to build and support a system of evidence-based policymaking for strategically selecting, funding, operating, monitoring, and evaluating public programs that deliver the best returns on taxpayer investments.

Appendix A: Methodology

Developing a framework for a system of evidence-based policymaking required a two-step approach. Results First staff began by reviewing extensive academic research on systems that support evidence-based policymaking. Second, we conducted 46 interviews with academics, practitioners, and government experts to discuss their research and experiences with this approach and used the information to identify activities governments should undertake to establish and sustain a system of evidence-based policymaking. An external panel of experts in this area reviewed our findings and provided valuable input on the key components and the overall report.

Appendix B: Potential roles in state government

Key steps	Governor's office	Agency or program leadership	Legislature
Program assessment: Systematically review available evidence on the effectiveness of public programs.			
Develop an inventory of funded programs	Issue an executive order requiring agencies to develop program inventories	Lead the agency through the inventory process	Enact legislation requiring a program inventory
Categorize programs by their evidence of effectiveness	Create a workgroup to lead the development of research standards	Lead the agency through the categorization process	Enact legislation establishing criteria for the levels of research rigor
Identify programs' potential return on investment	Require agency budget requests to include cost-benefit information when practicable	Conduct or contract out cost-benefit analyses	Direct legislative research staff to conduct cost-benefit analyses
Budget development: Incorporate evidence of program effectiveness into budget and policy decisions, giving funding priority to those that deliver a high return on investment of public funds.			
Integrate program performance information into the budget development process	Create standard operating procedures and formats for agencies to report performance data in budget requests	Develop performance measures and benchmarks	Direct research and agency staff to develop performance measures and benchmarks
Present information to policymakers in user-friendly formats that facilitate decision-making	Require executive branch agencies to develop *Consumer Reports*-type summaries	Develop *Consumer Reports*-type summaries	Support the development and use of *Consumer Reports*-type summaries
Include relevant studies in budget hearings and committee meetings	Include relevant studies in budget hearings and committee meetings; direct agencies to support budget requests with evidence of outcomes	Simplify evidence-based requests to include clear, concise, and verifiable information about program results	Require agencies to regularly report on program outcomes and evaluations and to use a standard format for reports
Establish incentives for implementing evidence-based programs and practices	Set aside funding for competitive grants	Administer grant competitions	Set aside funding in budgets for grant competitions
Build performance requirements into grants and contracts	Require that performance measures be incorporated in contracts where practicable	Work with contracted providers to develop common outcomes for reports and provide training	

Key steps	Governor's office	Agency or program leadership	Legislature
Implementation oversight: Ensure that programs are effectively delivered and are faithful to their intended design.			
Establish quality standards to govern program implementation	Direct agencies to develop statewide standards	Meet with contract providers to gather input on standards	Incorporate standards into statute
Build and maintain capacity for ongoing quality improvement and monitoring of fidelity to program design	Emphasize the importance of building internal capacity to faithfully implement evidence-based programs	Provide training and technical support to contract providers and local governments charged with implementing programs	Provide resources for training and technical support
Balance program fidelity requirements with local needs		Hold regular meetings to review implementation practices and gather feedback from providers	
Conduct data-driven reviews to improve program performance	Develop a structure for program review meetings, define the roles of the participants, and provide leadership and support	Analyze data and provide it for the meetings	
Outcome monitoring: Routinely measure and report outcome data to determine whether programs are achieving desired results.			
Develop meaningful outcome measures for programs, agencies, and the community	Provide leadership, emphasizing the importance of measuring outcomes; create workgroups to guide the process	Establish consistent processes to review measures and goals	Provide input on performance measurement process to increase its usefulness to decision-makers
Conduct regular audits of systems for collecting and reporting performance data	Create work groups to guide the process	Establish systems for collection and validation of data; administer the process	Direct legislative staff to participate in work groups
Regularly report performance data to policymakers	Develop a standardized format for reporting outcome data (e.g., report cards, data dashboards)	Collect data and develop reports (e.g., report cards, data dashboards)	Request performance data at relevant committee hearings

Key steps	Governor's office	Agency or program leadership	Legislature
Targeted evaluation: Conduct rigorous evaluations of new and untested programs to ensure that they warrant continued funding.			
Leverage available to conduct evaluations	Create a work group to study resources available in the executive branch	Provide information to the work group	Create a work group to study resources available in the legislative branch
Target evaluations to high-priority programs	Develop criteria for prioritizing programs and provide funding for them in program budgets	Create a prioritized list within each agency	Prioritize program evaluation for legislative, fiscal, or research offices
Make better use of administrative data—information typically collected for operational and compliance purposes—to enhance program evaluations	Facilitate data-sharing among agencies	Identify university or other partners with experience in using administrative data for evaluations	Facilitate data-sharing among agencies
Require evaluations as a condition for continued funding of new initiatives	Review evaluations in the budget development process	Administer and monitor test projects	Enact legislation or include language in appropriations act requiring the evaluation of test projects, and review evaluations in the budget review process
Develop a centralized repository for program evaluations	Work jointly with the legislature to identify and staff the central repository	Contribute data and analysis to repository	Work jointly with the executive branch to identify and staff the central repository

Note: The roles of each branch of government described in this table may differ by state depending on laws and budget rules.

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Endnotes

1   Although there are several classification systems that rank the strength of evidence on program outcomes, our framework uses four categories that consider the rigor of research methods used and the amount of evidence available:

• Evidence-based programs and practices have been evaluated multiple times and found to be effective using rigorous methods such as randomized controlled trials, statistically controlled evaluations, or a single large multisite randomized or statistically controlled evaluation. Typically, these programs have specified a set of procedures that allow for successful replication.

• Research-based programs or practices have been tested using rigorous methods (usually a single randomized control study or multiple studies that use strong comparison group designs) but do not meet the evidence-based standard. These programs typically have specified a set of procedures that allow for successful replication.

• Promising programs and practices have been tested using less rigorous research designs that do not meet the research-based standard. These programs and practices typically have a well-constructed logic model or theory of change.

• Non-evidence-based programs and practices lack sufficient evidence to meet the promising standard.

Three of the four categories—evidence-based, research-based, and promising—are based on standards initially developed in Washington state. See University of Washington, Washington State Institute for Public Policy, "Inventory of Evidence-Based, Research-Based, and Promising Practices for Prevention and Intervention Services for Children and Juveniles in the Child Welfare, Juvenile Justice, and Mental Health Systems" (Sept. 30, 2012), http://www.wsipp.wa.gov/ReportFile/1332/Wsipp_Inventory-of-Evidence-Based-Research-Based-and-Promising-Practices_Full-Report.pdf.

2   Yilin Hou et al., "States Performance-Based Budgeting in Boom and Bust Years: An Analytic Framework and Survey of the States," *Public Administration Review* (May/June 2011), 71(3): 370-388.

3   The Pew Charitable Trusts, "State Tax Revenue Grows, but a Full Recovery Eludes 26 States" (May 19, 2014), http://www.pewtrusts.org/en/research-and-analysis/analysis/2014/05/19/state-tax-revenue-grows-but-a-full-recovery-eludes-26-states.

4   The Pew Charitable Trusts, "The Fiscal Health of State Pension Plans Funding Gap Continues to Grow," (April, 8, 2014), http://www.pewtrusts.org/en/research-and-analysis/analysis/2014/04/08/the-fiscal-health-of-state-pension-plans-funding-gap-continues-to-grow.

5   Examples of clearinghouses include: Blueprints for Healthy Youth Development, *University of Colorado Boulder Institute of Behavioral Science Center for the Study and Prevention of Violence*, http://www.blueprintsprograms.com; Campbell Systematic Reviews, the Campbell Collaboration; "What Works in Social Policy?" *Coalition for Evidence-Based Policy*, http://evidencebasedprograms.org; Cochrane Reviews, *the Cochrane Collaboration*, http://www.cochrane.org/cochrane-reviews; Crimesolutions.gov, Office of Justice Programs, *U.S. Department of Justice*, https://www.crimesolutions.gov/Programs.aspx; Evidence-Based Home Visiting Service Delivery Models, Health Resources and Services Administration, *U.S. Department of Health and Human Services*, http://mchb.hrsa.gov/programs/homevisiting/models.html; SAMHSA's National Registry of Evidence-Based Programs and Practices, Substance Abuse and Mental Health Services Administration, *U.S. Department of Health and Human Resources*, http://www.nrepp.samhsa.gov; Teen Pregnancy Prevention Resource Center, Office of Adolescent Health, *U.S. Department of Health and Human Services*, http://www.hhs.gov/ash/oah/oah-initiatives/teen_pregnancy/db/tpp-searchable.html; and What Works Clearinghouse, *Institute of Education Sciences, U.S. Department of Education*, http://ies.ed.gov/ncee/wwc/findwhatworks.aspx.

6   Ron Haskins and Jon Baron, "Building the Connection Between Policy and Evidence: The Obama Evidence-Based Initiatives," NESTA (September 2011), http://coalition4evidence.org/wp-content/uploads/2011/09/Haskins-Baron-paper-on-fed-evid-based-initiatives-2011.pdf.

7   This number is based on total funding for the seven federal grant programs listed in "A Guide to Evidence and Innovation," Interagency Working Group on Youth Programs, accessed July 21, 2014, http://evidence-innovation.findyouthinfo.gov/investingEvidence.

8   The U.S. Office of Management and Budget, "Next Steps in the Evidence and Innovation Agenda" (letter dated July 26, 2013), http://www.whitehouse.gov/sites/default/files/omb/memoranda/2013/m-13-17.pdf.

9   U.S. Department of Health and Human Services, Health Resources and Services Administration, "The Maternal, Infant, and Early Childhood Home Visiting Program," http://mchb.hrsa.gov/programs/homevisiting/; Health Resources and Services Administration, "Affordable Care Act Maternal, Infant, and Early Childhood Home Visiting Program: (2011) 10, http://www.hrsa.gov/grants/manage/homevisiting/sir02082011.pdf; and U.S. Department of of Labor, Employment and Training Administration, "The Workforce Innovation Fund," last modified March 26, 2014, http://www.doleta.gov/workforce_innovation.

10   Results First researchers used LexisNexis to identify all legislation passed between 2004 and 2014 that included the following phrases: "evidence-based policymaking" (or "policy making"), "evidence-based decision making," "evidence-based program(s)," "evidence-based

practice," "research-based decision making," "research-based practice," "research-based program(s)." Some laws were omitted from the final list because they did not focus specifically on evidence-based policymaking. Researchers also reviewed laws that did not meet these criteria but were identified in previous work as supporting evidence-based policymaking.

11   The Pew-MacArthur Results First Initiative, *States' Use of Cost-Benefit Analysis: Improving Results for Taxpayers* (July 2013), http://www.pewtrusts.org/~/media/legacy/uploadedfiles/pcs_assets/2013/PewResultsFirst50statereportpdf.pdf.

12   Rhode Island Office of Management and Budget, "Results First—Adult & Juvenile Justice Program Inventory" (March 2014), http://www.omb.ri.gov/documents/performance/results-first/Results%20First%20Program%20Inventory%20March%202014.pdf.

13   H.B. 2536, 2012 Regular Session, Washington State Legislature, http://lawfilesext.leg.wa.gov/biennium/2011-12/Pdf/Bills/House%20Passed%20Legislature/2536-S2.PL.pdf.

14   The four agencies are the state's departments of Corrections, Health, Education, and Transportation; H.B. 677, 2014 Regular Session, Mississippi Legislature, http://billstatus.ls.state.ms.us/documents/2014/html/HB/0600-0699/HB0677SG.htm.

15   The Pew-MacArthur Results First Initiative regularly tracks budget allocations that were informed by each state's Results First model analyses. Results First regularly publishes the total allocations of Results First partner states, which go through a strict verification process. Total allocations have increased since our most recent publication, "Achieving Success With the Pew-MacArthur Results First Initiative: A State Progress Report 2011-13" (February 2014), http://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2014/02/05/achieving-success-with-the-pewmacarthur-results-first-initiative, from $38 million to $81 million. This figure and any additional 2014 allocations will be published in early 2015.

16   Pew-MacArthur Results First Initiative interview with District 43 Representative Diana Urban, Connecticut General Assembly, April 7, 2014.

17   Although cost-benefit analysis is one important tool that can help policymakers determine the best way to allocate scarce resources, the cost-benefit ratio produced should not be the only data used in making policy decisions. For certain programs, such as those concerning residents' health and safety, policymakers may opt to maintain a program whose benefits are only slightly greater than or are less than the costs.

18   Iowa Department of Corrections, "Return on Investment: Evidence-Based Options to Improve Outcomes" (May 2012), http://www.doc.state.ia.us/Research/DOC_HandoutROI_OffenderPrograms.pdf; New Mexico Legislative Finance Committee, "Evidence-Based Programs to Reduce Recidivism and Improve Public Safety in Adult Corrections" (July 2013), http://www.nmlegis.gov/lcs/handouts/CCJ%20072213%20Item%201%20LFC%20Results%20First%20Brief.pdf; Washington State Institute of Public Policy, "Prison, Police, and Programs: Evidence-Based Options That Reduce Crime and Save Money" (November 2013), http://www.wsipp.wa.gov/ReportFile/1396/Wsipp_Prison-Police-and-Programs-Evidence-Based-Options-that-Reduce-Crime-and-Save-Money_Full-Report.pdf.

19   Iowa Department of Corrections, "Return on Investment. Evidence-Based Options to Improve Outcomes" (May 2012), http://www.doc.state.ia.us/Research/DOC_HandoutROI_OffenderPrograms.pdf.

20   Ibid., 5.

21   The Pew-MacArthur Results First Initiative: "New Mexico's Evidence-based Approach to Better Governance" (August 2014), http://www.pewtrusts.org/~/media/Assets/2014/08/NM_Results_First_Brief_web.pdf.

22   Kit R. Van Stelle, Janae Goodrich, and Stephanie Kroll, "Treatment Alternatives and Diversion (TAD) Program: Participant Outcome Evaluation and Cost Benefit Report (2007-2013)" (July 2014), http://uwphi.pophealth.wisc.edu/about/staff/van-stelle-kit/tad-2014-outcomes-report.pdf.

23   Center for Employment Opportunities, Social Finance US, and the State of New York, "Investing in What Works: 'Pay for Success' in New York State—Increasing Employment and Improving Public Safety Detailed Project Summary," accessed Oct. 5, 2014, http://www.budget.ny.gov/contract/ICPFS/PFSProjectSummary_0314.pdf.

24   Connecticut Judicial Branch, Court Support Services Division, "Connecticut's Probation Risk Reduction Program: A Blueprint for Evaluation and Increased Effectiveness of Community Based Services" (spring 2002), 6, http://www.jud.state.ct.us/external/news/SpringSanctions.pdf.

25   Pew-MacArthur Results First Initiative interview with Cynthia Theran, assistant director of programs and services, Connecticut Court Support Services Division (Jan. 16, 2014).

26   The Center for Foster Care and Adoption Data, "Performance-Based Contracting in Tennessee's Foster Care System," https://fcda.chapinhall.org/wp-content/uploads/2012/10/2012_TN-PBC-case-hx2.pdf.

27   Washington State Institute of Public Policy, "Recommended Quality Control Standards: Washington State Research-Based Juvenile Offender Programs" (December 2003), http://www.wsipp.wa.gov/ReportFile/849.

28   Washington State Institute for Public Policy, "Outcome Evaluation of Washington State's Research-Based Programs for Juvenile Offenders" (January 2004), http://www.wsipp.wa.gov/ReportFile/852/Wsipp_Outcome-Evaluation-of-Washington-States-Research-Based-Programs-for-Juvenile-Offenders_Full-Report.pdf.

29   The EPISCenter is a project of the Prevention Research Center at Pennsylvania State University, jointly funded by the Pennsylvania Commission on Crime and Delinquency (PCCD) and the Pennsylvania Department of Public Welfare as part of PCCD's Resource Center for Evidence-Based Practice.

30   Pew-MacArthur Results First Initiative interview with Brian Bumbarger, director, Pennsylvania State University EPISCenter, and assistant director for knowledge translation and dissemination, Prevention Research Center (Oct. 29, 2013).

31   H.B. 2144, 2009 Regular Session, Oregon State Legislature, https://olis.leg.state.or.us/LIZ/2009R1/Measures/Text/HB2144/Enrolled.

32   Pew-MacArthur Results First Initiative interview with William Baney, director, Systems of Care Institute, Portland State University, March 17, 2014.

33   The data-driven performance management meeting approach was initially developed by the New York City Police Department in the 1990s. Commonly referred to as CompStat or PerformanceStat, this format has been adopted by other state and local governments, notably Baltimore's CitiStat and Maryland's StateStat. See *A Guide to Data-Driven Performance Reviews*, http://www.urban.org/UploadedPDF/1001559-Data-Driven-Performance-Reviews.pdf.

34   Robert Behn, What All Mayors Would Like to Know About Baltimore's CitiStat Performance Strategy" (2007), http://www.businessofgovernment.org/sites/default/files/Behn_BOG.pdf.

35   "Maryland StateStat," accessed July 21, 2014, http://www.statestat.maryland.gov.

36   "Virginia Performs," accessed July 21, 2014, http://vaperforms.virginia.gov.

37   Other members of the Council on Virginia's Future include the lieutenant governor, as well as eight members of the Virginia General Assembly, including the speaker of the House, the president of the Senate, chairs from both House and Senate finance committees, the majority and minority leaders from each house, and cabinet and citizen appointments made by legislators and the governor.

38   Healthy Housing Solutions Inc., "HUD Healthy Communities Transformation Initiative (HCTI): National Advisory Panel Review of the Healthy Communities Index 'Straw Man'" (May 3, 2013), http://www.housingnm.org/files/Library/hud_healthy_communities_index_may2013.pdf.

39   Pew-MacArthur Results First Initiative interview with Nicole Edmonson, director of performance audit services, Louisiana Legislative Auditor and Karen LeBlanc, performance audit manager, Louisiana Legislative Auditor, Dec. 16, 2013.

40   "Michigan Dashboard," accessed July 21, 2014, http://www.michigan.gov/midashboard.

41   "Michigan Education Dashboard," accessed June 27, 2014, http://www.michigan.gov/midashboard/0,4624,7-256-58084---,00.html.

42   See, for example, *Actionable Intelligence for Social Policy*, http://www.aisp.upenn.edu/about-us/, and Coalition for Evidence-Based Policy, "Demonstrating How Low-Cost Randomized Controlled Trials Can Drive Effective Social Spending: Project Overview and Update" (Dec. 13, 2013), http://coalition4evidence.org/low-cost-rct-competition.

43   Angela Hawken and Mark Kleiman, "Managing Drug Involved Probationers With Swift and Certain Sanctions: Evaluating Hawaii's HOPE" (December 2009), https://www.ncjrs.gov/pdffiles1/nij/grants/229023.pdf.

44   NYC Center for Economic Opportunity, "Evaluation Reports," accessed May 19, 2014, http://www.nyc.gov/html/ceo/html/data/reports.shtml.

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Kimberley R. Isett, Brian W. Head, and Gary VanLandingham, Editors

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Bridging the Gap between Evidence and Policy Makers: A Case Study of The Pew-MacArthur Results First Initiative

Evidence in Public Administration

Abstract *Developing ways to bridge the long-recognized gap between researchers and policy makers is increasingly important in this age of constrained public resources. As noted by recent scholarship, progress toward evidence-informed policy making requires both improving the supply of research that is reliable, timely, and relevant to the policy process and promoting demand and support for this information among decision makers. This article presents a case study of the Pew-MacArthur Results First Initiative, which is working in a growing number of states and local governments to build systems that bring rigorous evidence on "what works" into their budget processes and to support its use in resource allocation decisions. The initiative's experience to date is promising, although creating lasting and dynamic evidence-based policy-making systems requires a long-term commitment by both researchers and policy makers.*

The gap between the knowledge of "what works" generated by researchers and the policy choices made by public leaders has long been a concern and is well documented. Factors contributing to this divide are numerous and include differing priorities, values, and incentives in the two spheres; the lengthy process of research creation versus policy makers' short decision windows; and diverging communication strategies of scholars and policy makers (Bansal et al. 2012; Martin 2010). While several strategies have been explored for bridging this divide, including "engaged scholarship," "evidence coproduction," and "knowledge brokers," improving research utilization remains a critical challenge for the field (Cairney 2016; Newman, Cherney, and Head 2016).

Nonetheless, some have proclaimed that we are in the "Golden Age of Evidence-Based Policy" (the title of the Association for Public Policy Analysis and Management's Fall 2015 Research Conference) as a result of growing interest in the topic and rapidly expanding knowledge on the effectiveness of human service programs (Jennings and Hall 2011, 2012). However, at least three things must happen to realize the goal of evidence-based policy making. First, reliable and relevant evidence must be curated, aggregated, and made readily available to policy makers. Second, techniques for incorporating this evidence into the budget and policy analysis processes must be developed. Third, support for using evidence must be built among policy makers. These actions require improving both the supply and demand for evidence in the policy system.

This article presents a case study of the Pew-MacArthur Results First Initiative and its efforts to address these challenges and promote an evidence-based approach to governing in state and local governments.

The Results First Approach

The Pew-MacArthur Results First Initiative was established in 2010 by the Pew Charitable Trusts, a nonpartisan, nonprofit organization, and the John D. and Catherine T. MacArthur Foundation, one of the nation's largest charitable foundations. The two entities established the initiative after noting that states typically resorted to across-the-board cuts when struggling with budget gaps during the Great Recession, in part because policy makers lacked the information they needed to make more strategic choices about what to cut (NCSL 2011, 2012).

Results First seeks to build the capacity of governments to systematically use rigorous evidence to inform their budget and policy decisions by creating tools that aggregate rigorous evidence on "what works" across multiple social policy areas, providing technical assistance to enable state and local government staff to use these tools in their routine budget analyses, and providing communications and outreach services to build understanding and support for evidence use among policy makers. Twenty-two states and four counties were participating in the Results First Initiative as of March 2016.

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Evidence Aggregation Tools

As policy makers must have ready access to information before they can be expected to use it, Results First has developed two tools that aggregate curated evidence on the effectiveness of social programs. These tools address "what works" in the policy areas of adult criminal justice, juvenile justice, child welfare, mental health, substance abuse, pre-K–12 education, and prevention.

The first of these tools is a web-based "clearinghouse of clearinghouses" that consolidates the evidence ratings issued by eight national research clearinghouses.[1] These entities—which include organizations such as the U.S. Department of Education's What Works Clearinghouse, Blueprints for Healthy Youth Development, and the U.S. Department of Justice's CrimeSolutions.gov—screen evaluation studies and rate programs based on the level of rigorous evidence that exists about their effectiveness (Nuehoff et al. 2015). While the clearinghouses can enable users to quickly identify what is known about the effectiveness of a wide range of social programs, knowledge and use of this information by states and local governments has been limited because the clearinghouses have little capacity to publicize their work and use significantly different nomenclature when reporting results. For example, different clearinghouses designate the programs with the highest level of evidence of effectiveness as, alternatively, "model," "top tier," "effective," and "3.0–4.0."

The Results First Clearinghouse Database addresses these challenges by enabling users to access the evidence ratings of the eight clearinghouses through a single web portal, and it reconciles the varying evidence ratings using a traffic light color system: programs with the highest level of evidence of their effectiveness are shown with a green symbol; those with moderate evidence are depicted with a yellow symbol; and those found to have negative impacts are depicted with a red symbol. Consolidating this information also enables users to search the 1,200 programs by policy area, intervention type, and evidence ratings.

Our second evidence aggregation tool is a benefit–cost model that enables governments to compare the long-term return on investment they could achieve through funding programs across the social policy areas. This model is based on the well-recognized work of the Washington State Institute for Public Policy, which has been developing and using the approach for more than 20 years (VanLandingham and Drake 2012).[2] The model predicts and monetizes the return on investment that each program would achieve, based on its effect size—derived from a meta-analysis of rigorous evaluations—applied to jurisdiction-specific population and cost data. The model uses Monte Carlo simulations to assess the investment risk of each program (the percentage of simulations that generate a positive net present value), and it generates cash-flow and break-even analyses that disaggregate costs and benefits by level of government (federal, state, and local), policy area (e.g., criminal justice, education, and child welfare), and primary beneficiary (taxpayer, client, and societal).

Use in Budget Analyses

Results First's goal is for our partner governments to incorporate the tools into their routine budget analysis processes. To do so, we train implementation teams (which typically include budget and research staff within the jurisdictions' executive and legislative branches) in three tasks: compiling inventories of currently funded programs, assessing the evidence available on these programs' effectiveness in generating desired outcomes, and computing the programs' return on investment. We provide this training and technical support through a mixture of site visits, webinars, conference calls, and e-mail exchanges. Partner governments typically initially focus their work on one or two policy areas (such as adult and juvenile justice) and extend their analysis into additional areas over time.

The first task—developing a program inventory—is not a trivial exercise, as governments often have very limited information on the interventions that are delivered by their networks of agencies and contracted providers. Developing the inventory typically requires reviews of budget and contract documents as well as interviews of agency and provider staff.

In the second task, the implementation teams identify the level of rigorous evidence that exists about the effectiveness of each locally funded program. They do so by matching the local programs to those in the Clearinghouse Database to identify the evidence rating; if no match is found, the team determines whether other reliable data is available about the programs' effectiveness such as local outcome evaluations and/or performance data. This information is added to the completed program inventory, providing a comprehensive perspective of how funding is allocated in a policy area and whether current programs are supported by rigorous evidence of their effectiveness. The completed inventories typically include descriptions of each program and its goals, the services provided, the target population and number of clients served, per-client and total costs, and the evidence rating of each program.

In the third task, the implementation teams customize the benefit–cost analysis model with local population and cost data and use the tool to examine whether currently funded programs are likely to generate benefits that exceed their costs. This analysis is limited to those programs that have a sufficiently rigorous evidence base to allow computation of effect sizes (approximately 250 programs are included in the model). The teams generate reports that compare the programs based on the relative return on investment that they could achieve if implemented with fidelity in the jurisdiction. Table 1 depicts the type of reports generated by our participating jurisdictions, showing the program inventory, return on investment analysis results if available, and evidence ratings of those programs that lack sufficient evaluations to permit benefit–cost analysis.

Table 1 Example Results from First Benefit–Cost Analysis and Program Inventory Report

Program	Costs	Benefits	Benefit–Cost Ratio	Evidence Rating
Cognitive behavioral therapy	$431	$10,095	$23.42	
Vocational education	$1,645	$19,594	$11.91	
Correctional industries	$1,485	$6,818	$4.59	
Drug courts	$4,951	$15,361	$3.10	
Intensive supervision	$4,305	−$1,139	−$0.26	
Boot camps	n/a	n/a	n/a	No effects
Veterans courts	n/a	n/a	n/a	Not rated

Note: Results are for demonstrative purposes only.

1   These analyses, when incorporated into the governments' routine
2   budget process, provide a more comprehensive view of how taxpayer
3   funds are being spent and the likelihood that these investments will
4   achieve desired outcomes. These analyses also enable policy makers
5   to consider new questions when contemplating budget choices, such
6   as whether funding should be shifted to alternative programs that
7   have more evidence of their effectiveness and/or are predicted to
8   achieve higher returns on the investment of public funds.
9
10 *Build Stakeholder Understanding and Support*
11 In addition to increasing the supply of evidence available to
12 governments, Results First seeks to build demand for this
13 information among state and local policy makers. This reflects our
14 understanding, grounded in research (see Bansal et al. 2012), that
15 simply providing information to policy makers is not enough to
16 achieve impact—they must also understand how to use the evidence
17 to inform policy and budget choices and have the desire to do
18 so. Accordingly, we work with our partner governments to secure
19 buy-in from a broad range of stakeholders and to build this support
20 over time. This typically includes outreach to legislative leadership
21 and caucuses, appropriations committee chairs and members,
22 executive branch budget officials, agency secretaries and senior
23 managers, and key external stakeholders such as the business, media,
24 and advocacy communities. To promote buy-in, we ask our partner
25 governments to develop a communication plan for this outreach,
26 and they have complete control over the release of analysis results.
27
28 *Impact and Lessons Learned*
29 The Results First initiative has attained notable successes but
30 also encountered challenges and compiled lessons learned.
31 Successes include ongoing growth in the number of participating
32 governments, which has expanded each year. These jurisdictions
33 are successfully completing the key analytical tasks of developing
34 program inventories, assessing evidence levels, and implementing
35 the benefit–cost model; they are also taking steps to institutionalize
36 the approach within their budget processes. We have also learned
37 some key lessons, including the importance of carefully assessing
38 partner capacity, the need to focus capacity building on central
39 policy-making units, and the necessity of long-term engagement to
40 help our partner governments develop cultures of evidence-based
41 policy making.
42
43 *Assessing partner capacity*. An early challenge for Results First
44 involved the selection of partner jurisdictions. We recruited our
45 initial partners through presentations at forums such as the Council
46 of State Governments and the National Conference of State
47 Legislatures, and we accepted partnerships with all states that
48 expressed interest. While this enabled the project to quickly recruit
49 our first partners, it became apparent that some jurisdictions lacked
50 the analytical capacity and political support needed to be successful;
51 in some jurisdictions, staff struggled to complete project tasks, while
52 in others, policy makers paid little attention to analysis results. It
53 became clear that Results First, like other government reform
54 efforts, requires both a significant commitment of staff resources
55 and broad stakeholder support to be successful (Bansal et al. 2012;
56 Miller and Oliver 2015).
57
58 To address this problem, Results First developed an extensive
59 due diligence process to assess potential partners. This process

60 includes a series of conference calls, site visits, and consultations
61 with government relations firms within the jurisdiction, and our
62 assessment focuses on gauging whether the government has the
63 requisite data capacity and supportive political landscape needed
64 to achieve meaningful outcomes. If these assessments are positive,
65 Results First requires letters of invitation from the leadership of the
66 government's legislative and executive branches before entering into
67 a partnership. While this due diligence process takes more time, it
68 has generated enhanced commitments to the initiative and increased
69 the odds of success.
70
71 *Capacity building focused on central policy-making units*. We
72 also learned the importance of project team location within partner
73 governments. In the initial years of the project, we were open to
74 proposals to house implementation teams in a wide variety of
75 organizational settings, such as agency research offices, interagency
76 coordinating bodies, executive budget offices, and legislative
77 research units. It became apparent that while teams housed in
78 agency research offices typically had strong technical capacity, they
79 often had weak access to executive and legislative policy makers,
80 which limited the use of their analytical results. Teams housed in
81 interagency coordinating bodies had stronger access to policy
82 makers but often lacked access to technical staff and needed data,
83 which again limited success. We found that the ideal placement of
84 implementation teams was in central entities such as executive
85 budget offices and legislative research/budget units, which
86 typically had strong relationships with both executive and
87 legislative officials as well as the ability to work collaboratively
88 with agencies to analyze data. Given that Results First's goal is
89 to facilitate the use of evidence in the budget processes, we
90 now strongly recommend that all partner jurisdictions locate
91 teams in these central units.
92
93 *Need for prolonged engagement*. It has become clear that
94 promoting change in governments' policy-making cultures requires
95 several years to take root and a high level of understanding and
96 support among diverse stakeholders. We have also learned that it is
97 important to keep expectations reasonable, recognizing that
98 evidence is only one of many factors that policy makers will
99 consider when making choices, and it must be balanced with
100 political and ideological considerations, constituent needs, and
101 timing constraints (Bogenschneider and Corbett 2010; Jennings and
102 Hall 2012).
103
104 Accordingly, Results First has sustained its work in all participating
105 jurisdictions, and some of these partnerships have continued for
106 over five years. For example, we began working with New Mexico's
107 Legislative Finance Committee in 2012, and this partnership has
108 successfully informed legislative decisions to appropriate millions
109 of dollars to evidence-based programs. Our work has expanded in
110 recent years to focus on building capacity within the state's executive
111 branch agencies to use evidence tools to inform their program
112 selection and implementation activities.
113
114 A growing number of our partner governments have adopted
115 policy levers to institutionalize evidence-based policy making,
116 recognizing that maintaining policy maker attention and support
117 for any initiative can be difficult given the distractions inherent in
118 the political process (Kingdon 1995). These actions include creating

statutory definitions of evidence to create a common vocabulary and understanding among stakeholders, establishing funding preferences for evidence-based programs, and requiring that program inventories and return on investment analyses be incorporated into budget analyses.

For example, Mississippi has required agencies to report program inventories to the legislature, and it has required funding requests to be justified with answers to seven questions relating to effectiveness evidence, fidelity monitoring, and outcome assessment systems (Arinder 2016). New Mexico's legislature has similarly required budget analysts to consider rigorous evidence and return on investment when considering budget requests. Several states have established mechanisms that target funding to evidence-based programs. For example, New York has established a grant program that gives preference to programs predicted to generate strong public safety and financial impacts; Oregon has required mental health, substance abuse, adult corrections, and juvenile justice treatment programs to allocate at least 75 percent of available funds to evidence-based programs. Collectively, the governments participating in Result First have used the approach to target over $158 million to evidence-based programs.

Our ongoing engagements have found that states and local governments pose different challenges in evidence-based policy making. In general, states have greater analytical capacity but their organizational scale and complex policy systems can require very long-term engagements to achieve meaningful impact. In contrast, local governments have more limited data capacity and require a higher level of technical assistance to implement evidence tools, but they can move much more quickly to adopt policy levers and shift funding once their smaller groups of policy makers reach agreement to do so.

A final challenge and lesson learned is that evidence-informed governance requires steps that are beyond the scope of Results First. While directing funding to evidence-based programs is a critical first step toward improving government outcomes, this goal will only be achieved if these programs are implemented with fidelity to their treatment models. Governments also need to create systems that regularly track program outcomes to determine if desired outcomes are being achieved, and they must rigorously evaluate new and innovative programs to continue to their build knowledge of "what works" (Pew Charitable Trusts 2014). Building such integrated policy-making systems will require partnerships with other initiatives that focus on these important steps, and we are actively seeking such collaborations in our partner jurisdictions.

Conclusion

Our experience in the Pew-MacArthur Results First Initiative shows that it is possible to help governments increase their use of evidence in their budget processes by providing tools that make evidence easier to access, offering technical assistance to help their staff incorporate evidence and investment analyses into routine budget processes, and promoting knowledge and support for using evidence among policy makers to inform their policy and budget choices. While this work is challenging, participating governments are taking steps to increase evidence use, target funds to evidence-based programs, and create policy frameworks that will help sustain these efforts in the long term.

However, truly bridging the gap between researchers and policy makers will require sustained actions by both governments and the academy. Additional research is needed to expand the knowledge of "what works" and to test whether evidence-based programs achieve predicted outcomes when implemented in the field. The analytical tools that enable governments to readily use this information in the policy process must continue to be developed, and governments will continue to need training and technical assistance to implement these techniques. Further, evidence-based analytical and management techniques should become part of the public administration curriculum so that new public managers are equipped to effectively use these tools and deliver evidence-based programs with fidelity. These steps will not occur overnight. Nonetheless, the promise of evidence-based policy making—achieving materially better outcomes by targeting funds to those interventions that have been shown to be highly effective in achieving desired results—provides a compelling case for continuing these efforts.

Notes

1. See the Results First Clearinghouse Database at http://www.pewtrusts.org/en/research-and-analysis/issue-briefs/2014/09/results-first-clearinghouse-database.
2. The Results First model uses a cloud-based software platform that is based on the Microsoft Excel–based application developed and used by Washington State Institute for Public Policy. Once customized, the model can be used by multiple users in a jurisdiction to conduct analyses and has extended analyses and report production functions.

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New York's Investment in Evidence-Based Policymaking

Overview

The Pew-MacArthur Results First Initiative can help states that are already committed to evidence-based policymaking take their work to the next level by integrating research and analysis into everyday decision-making.

In New York, the Results First approach has been used to inform program and budget decisions as well as to enhance the state's evidence-based alternatives to incarceration. Areas of focus include:

• Investing in analysis by creating a robust, customized Results First benefit-cost model that helped leaders identify cost-effective, evidence-based interventions that can reduce criminal recidivism and generate government savings, with some interventions projected to return more than $4 for each dollar spent.

- Investing in evidence by securing more than $60 million over three years targeted to effective evidence-based programs through new grant initiatives, including about $50 million in state general funds and $12 million in "Pay for Success" funding from the U.S. Department of Labor.

- Investing in outcomes by requiring grant recipients to show that the programs are being implemented according to their original design—demonstrating fidelity—and that they are achieving expected outcomes.

Although a variety of factors account for New York's successful application of the Results First approach, leaders point to five key lessons learned that bolstered their efforts and will be important for other jurisdictions embarking on this work: the need for dedicated staff, careful timing, strategic focus, relationship building, and ongoing commitment.

Investing in analysis

New York joined Results First in 2012 with considerable internal assets, including an advanced technical staff, a rich criminal justice data warehouse, and strong agency leadership committed to using evidence in funding decisions.[1] These agency leaders wanted to better leverage their internal assets to develop a consistent, formal benefit-cost methodology that would strengthen the decision-making processes already in place[2] and help policymakers prioritize limited state resources toward evidence-based criminal justice programming.

The state's criminal justice leaders wanted to examine their investment in alternatives-to-incarceration programming, which consists of community-based interventions that focus on treatment. Proponents of such programs cite positive outcomes such as improved public safety and reduced corrections spending. But New York had large gaps in knowledge about what results the state could reasonably expect from the more than 170 community justice programs it was funding.[3] "We had limited resources and wanted to reduce crime—to provide the best programs that get the most out of taxpayer dollars—but at the time we had no idea whether we were funding the right interventions for our population or what we were getting for our money," said Michael C. Green, executive deputy commissioner of the New York State Division of Criminal Justice Services (DCJS), which oversees Results First in New York.[4] "Before Results First, our primary role was ensuring recipients used their grant funds the way they said that they would, such as paying for salaries or providing services. Our funding decisions were often based on anecdote. There was little emphasis on long-term public safety outcomes or return on investment."

> Before Results First ... our funding decisions were often based on anecdote. There was little emphasis on long-term public safety outcomes or return on investment."
>
> **—Executive Deputy Commissioner Michael C. Green**, *New York State Division of Criminal Justice Services*

The development of New York's Results First benefit-cost model, which DCJS analysts built in about two years with guidance from the Results First project, provided policymakers with a succinct list of evidence-based interventions that included detailed, state-specific calculations of how each program could affect the number of criminal victimizations and the amount of government spending. (See Appendix A.) In estimating program benefits, analysts chose to apply a relatively short period for calculating a return on investment (five years, versus the seven to 10 years used by some other Results First states) and to focus on direct benefits accrued to state government, in order to ensure that results resonated with policymakers. "We knew an excessively long period of return on investment

wouldn't work in this state. Leaders want to see tangible results and cost savings that are relevant to the state's budgeting cycle," said Marc Schabses, the cost-benefit coordinator for DCJS.[5] The agency also staggered the distribution of its two project reports—one detailing programs' expected impact on criminal victimizations[6] and one examining the return on investment expected from those interventions[7]—to "ensure that the conversation focused first on community safety," explained Deputy Commissioner Theresa E. Salo.[8] "After all, the real benefit of our investment is not only avoided costs; it's the impact of these programs on the safety of our state."

New York's Results First analysis identified several incarceration-based and community-based programs that were likely to produce a positive public safety and financial impact. Community-based employment programs emerged as a clear "safe bet," generating as much as $2.58 in taxpayer benefits for every $1 invested (based on meta-analytic findings), as did cognitive behavioral interventions,[9] which were expected to return as much as $2.52 for every dollar invested. (See Appendix A.) Although evidence-based employment and cognitive programs had been priorities for a number of years, their now-quantifiable effect on crime and spending solidified their importance in the state's criminal justice portfolio—and helped guide legislative funding.

Results First: A Model for Cost-Effective Policy Choices

The Results First Initiative, a project of The Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation, works with states and localities to develop the tools that policymakers need to identify and invest in effective programs that yield high returns on investment. Using innovative methods that can be customized, Results First partners learn to:

- Create an inventory of currently funded programs.

- Review which programs work.

- Conduct benefit-cost analysis to compare programs' likely return on investment.

- Use evidence to inform spending and policy decisions.

These efforts have helped leaders improve public outcomes, reduce costs, and increase accountability by ensuring that resources go to effective, cost-beneficial approaches.

Investing in evidence

Around the time that New York was building its Results First model and beginning to examine its community-based justice programs, the state also confronted a problem: Approximately 18 percent of funds ($3.5 million) for these programs came from federal stimulus money set to expire in 2012.[10] This reduction in federal funding presented a perfect opportunity for the state to use its Results First work to rethink how and on what type of programming to allocate resources. DCJS requested $5 million from the state's general fund to replace the expiring federal dollars, which it proposed to invest in evidence-based programs expected to return savings to the state. According to agency senior staff, early Results First benefit-cost calculations were critical to persuading decision-makers in the executive branch and Legislature to approve this request. "Our legislators want to make the most of taxpayer dollars, and Results First was the way to do that. They saw that a $5 million investment today would save them even more money in the long term," said Commissioner Green.[11]

New York's Key Players

- The **Governor's Office of Public Safety** directs criminal justice-related policy and legislative matters on behalf of the governor and oversees eight public safety agencies: the Commission of Correction, the Department of Corrections and Community Supervision, the Division of Criminal Justice Services, the Division of Homeland Security and Emergency Services, the Division of Military and Naval Affairs, the Division of State Police, the Office for the Prevention of Domestic Violence, and the Office of Victim Services.

- The **Division of Criminal Justice Services**, which oversees New York's Results First work, is a criminal justice support agency with a variety of responsibilities, including the collection and analysis of statewide crime data and the administration of state and federal grants. Its **Office of Probation and Correctional Alternatives** oversees county probation departments and community correction programs.

- The **Department of Corrections and Community Supervision** is responsible for the confinement and habilitation of approximately 53,000 individuals in custody at 54 state facilities, along with 36,000 parolees supervised by seven regional offices.

- The **Commission of Correction** promulgates standards for the management of correctional facilities; evaluates, investigates, and oversees correctional facilities; and assists in developing new correctional facilities.

- The **Division of Budget** assists the governor in preparing the executive budget proposal, offers fiscal policy advice to the governor's office, and administers and monitors expenditures authorized by the enacted budget.

The infusion of state funds catalyzed a larger restructuring of DCJS investments in incarceration alternatives. The agency crafted two new funding strategies: a $5.1 million competitive grant for programs that sought to "deliver effective service interventions at a competitive unit cost per participant"[12] and a $5.8 million noncompetitive continuation grant to service providers that had received stimulus funding in the previous fiscal year.[13] Both of these funding initiatives required the implementation of cost-effective, evidence-based programs, with an emphasis on cognitive behavioral and employment interventions that demonstrate positive outcomes. Both also subjected the applicants to new performance standards and required that programs use a state-approved validated risk assessment instrument[14] to target their services to higher-risk populations. For the fiscal year 2015-16 budget process, the agency placed similar program requirements on state-funded county re-entry task forces, which traditionally had not provided direct evidence-based services.[15]

According to DCJS senior staff, the Results First process helped to inform the requirements in these grant solicitations and in the scoring of applications. Now, instead of being selected through legislator preference or outdated formulas, programs must demonstrate their adherence to evidence-based practice; show quantifiable, tangible results; and agree to submit to fidelity reviews.

Table 1

State General Fund Appropriations for Alternatives to Incarceration
Millions of dollars

	FY12-13	FY13-14	FY14-15	FY15-16	Total
Total alternatives-to-incarceration appropriations	$16.3	$24.6	$24.5	$24.9	$90.3
Competitive or conditioned evidence-based/targeted programming	$4.1	$15.1	$15.6	$18.7	$53.5
Noncompetitive programming	$12.2	$9.5	$8.9	$6.2	$36.8
Percentage of funds targeted for evidence-based programming	25%	61%	64%	75%	N/A

Source: Internal communication, New York State Division of Criminal Justice Services, 2015

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New York also leveraged its Results First analysis to compete for and win a $12 million "Pay for Success" grant from the U.S. Department of Labor to expand evidence-based employment programs expected to generate cost savings.[16] New York was one of only two recipients of this grant nationwide.[17] State leaders attributed the successful bid to the strength of the Results First work, which quantified the financial and public safety value of investing in employment services for high-risk, recently released parolees. The state partnered with the Center for Employment Opportunities, which is using the award to expand its delivery of evidence-based employment programs to annually serve an additional 500 recently released, high-risk parolees with substantial employment needs.

The Department of Corrections and Community Supervision is also using Results First analyses to direct resources to programs that have proved effective and to rethink how to address problems for which research has yet to find a successful solution. One state that has taken such an approach is Iowa, where the Department of Corrections used its Results First analysis to replace an ineffective domestic violence program with a new model based on evidence-based practice.[18] Like Iowa, New York was "surprised to see that existing domestic violence interventions were unlikely to work ... but also inspired to be creative, thinking about different strategies—like containment models—that could be applied for this population," noted Deputy Commissioner Thomas J. Herzog.[19] Acting Commissioner Anthony J. Annucci explained that his agency wants to "use a proven

Figure 1

State General Fund Appropriations for Evidence-Based Alternatives to Incarceration
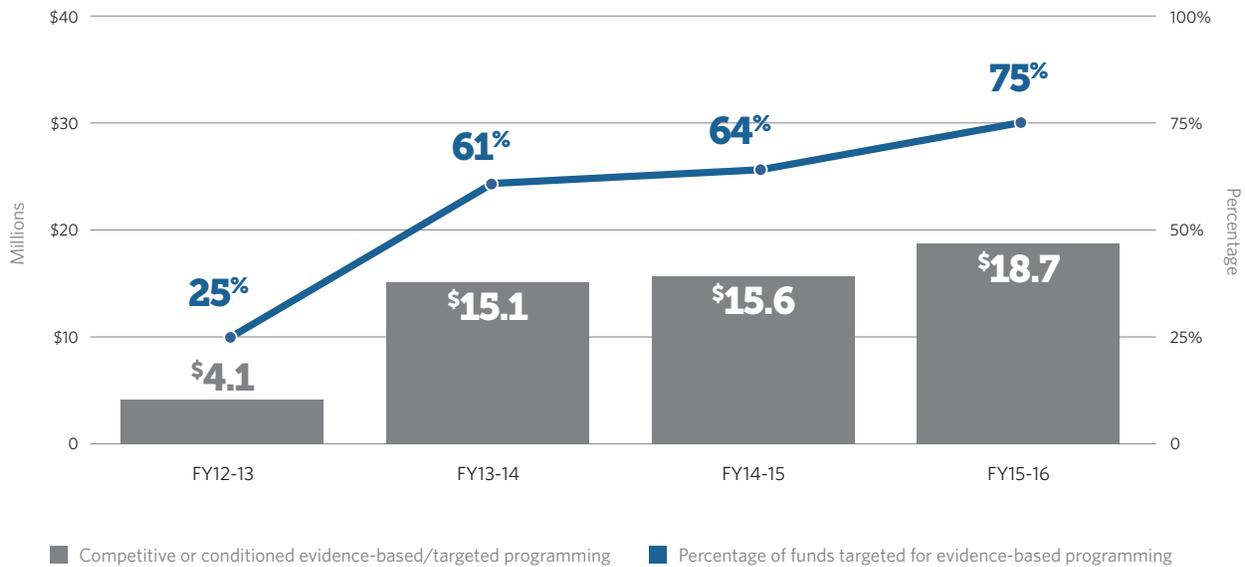
Source: Internal communication, New York State Division of Criminal Justice Services, 2015

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> [Our agency wants to] use a proven methodology and translate data into a 'dollars and cents' message that the general public can understand. At the end of the day, we have to know what we are funding and what results we can expect from that investment."
>
> —**Acting Commissioner Anthony J. Annucci**, *Department of Corrections and Community Supervision*

methodology and translate data into a 'dollars and cents' message that the general public can understand. At the end of the day, we have to know what we are funding and what results we can expect from that investment."[20]

New York's investment of approximately $50 million from the state's general fund for evidence-based alternatives to incarceration from fiscal 2013-14 to 2015-16 represented an increase in the percentage of state dollars dedicated to proven programs from about 25 percent in fiscal 2012-13 to 75 percent in fiscal 2015-16. (See Table 1.) Factoring in the grant from the U.S. Department of Labor, New York has allocated more than $60 million for evidence-based programs in the three years since it joined Results First.

Investing in outcomes

To get the results it wanted—reduced crime as well as increased savings—New York needed to monitor the implementation and outcomes of the evidence-based programs in which it had invested. As Marc Schabses of DCJS explained: "Washington State's early experiences were really eye-opening for us: programming decisions were made based on [benefit-cost] simulations, but the outcomes were not as expected because of poor program implementation. It demonstrated that making decisions or steering funding based on solid data was not necessarily enough."[21] In other words, it is vital that evidence-based programs are implemented according to their original design if the anticipated outcomes are to be realized.

DCJS reformed its existing performance-based contracting system to include case-level performance monitoring and regular fidelity reviews aimed at correcting issues early and ensuring that programs meet targeted outcomes.

- **Performance monitoring:** DCJS has engaged in performance-based contracting for a number of years, requiring providers to demonstrate achievement of performance milestones in order to receive funding. Although it is useful for holding programs accountable, the system did not track client demographics or risk. With the introduction of Results First and the increased focus on evidence, the quality of proposals and the use of data by grantees began to improve. The agency now requires programs to submit additional data on clients, which analysts match to the state's criminal justice data warehouse to prepare quarterly reports with information on client criminal history and in-program criminal activity. According to DCJS staff, these new data have helped providers better understand, track, and address the needs of clients through targeted interventions, and they have helped agency staff to identify and resolve issues at an early stage without going through a formal, lengthy program review. The state is also using the newly collected case-level participant information to conduct long-term comprehensive evaluations of program participant recidivism with outcome measures, comparison groups, and follow-up periods specifically tailored to individual programs.

- **Fidelity reviews:** An ambitious new fidelity monitoring initiative—seeded with $128,000 in general fund money—is helping to ensure that programs achieve outcomes through implementation that is faithful to the original design. New York has contracted with the University of Cincinnati Corrections Institute to train teams from John Jay College of Criminal Justice and Rochester Institute of Technology, which are being paid by the state to conduct fidelity assessments of individual program sites using the institute's Corrections Program Checklist. Once the reviews are completed, two new DCJS "action planners" provide intensive technical assistance to help programs correct issues identified during the review. Supplemental tools such as online trainings in evidence-based practices are being rolled out for use by all state-funded programs.

Leaders and staff within DCJS recognize that increased performance reporting and fidelity monitoring are time- and resource-intensive for both providers and agency staff but are also necessary for achieving outcomes. Leigh Bates, research manager at DCJS, explained the importance of this process to the state's Results First work: "These reviews—and the intensive technical assistance that follows—are really the only way to bring this work full circle. We can't tell providers that they are administering an evidence-based program wrong and then not offer support to change it."[22] The state will continue its investment in fidelity monitoring by using a portion of the local assistance appropriations.

The agency also committed to supplying providers with the resources they needed to become evidence-based, including a substantial focus on training in principles and specific programs. Providers accepted the new requirements and more intensive monitoring without the opposition one might expect. "Some of the providers

were just as excited as we were about the new requirements. They have the same goal—to get the best outcomes for the people they serve—and we wanted to put them in a position to succeed," said Yvonne Behan, director of the Office of Program Development and Funding within DCJS.[23]

The state's increased focus on accountability, support, and results has noticeably strengthened the quality of programs offered to reduce recidivism in New York. Deputy Commissioner Robert Maccarone, who directs the Office of Probation and Correctional Alternatives, said: "While providers had offered some evidence-based programming in the past, once they understood that DCJS was moving towards a higher level of rigor, they responded with great proposals that incorporated the evidence-based practices we were looking for."[24]

Lessons learned

Although a variety of factors account for New York's successful application of the Results First approach, agency leaders point to five key elements—staff, timing, focus, relationships, and commitment—that other states might consider when embarking on this work.

- **Dedicated staff:** DCJS leaders underscore the importance of cultivating a technical and collaborative staff able to develop a robust benefit-cost model, which requires coordination of data from several agencies, and to translate its results into concrete policy and funding decisions that leaders trust. "Our agency has sophisticated and highly skilled technical staff to do the work who have earned the trust of both state leadership and providers. We also have strong support from state leadership, and a growing agency culture excited for change,'" said Commissioner Green.[25] Where they did not have staff, agency leaders brought in external fidelity monitors and created two positions to ensure sufficient technical assistance.

- **Careful timing:** New York opted to approach its Results First work gradually, which senior staff members recommend to other states contemplating this work. Marc Schabses explained that the team "did not get ahead of itself. We did not commit to saving a specific amount of taxpayer dollars before our work began. Instead, we integrated our analysis into funding decisions thoughtfully, looking for opportunities that made sense and working collaboratively to implement changes."[26] In New York, this opportunity came in the form of the federal government's expiring stimulus dollars, which presented the agency with the chance to rethink how it wanted to fund programs and to introduce new requirements for contracts. Although these opportunities will vary by state, agency senior staff members agree that they must not be forced, and successful results should not be overpromised.

- **Strategic focus:** The team set an expected return on investment based on a short period of time (five years) and projected benefits accrued solely by state government. This decision was intended to produce realistic results that the agency felt it could actually achieve—and that legislators would trust. "We developed a conservative model that resonates with stakeholders, focusing on clear and objective information so that even the most cautious people would see that the analysis is solid," said Deputy Commissioner Salo.[27] The substantial investment of staff, time, and money into performance reporting and fidelity monitoring reflects DCJS' commitment to achieving these outcomes. As Deputy Commissioner Maccarone said, "It is important that we keep up our end of the bargain by delivering results."[28]

- **Relationship building:** Agency leaders reiterate the importance of engaging providers in the process, treating them as partners in a larger effort to achieve outcomes for clients. "Our agency was not only telling providers what we wanted them to do, but also saying that we would help get them there," said Behan, of the DCJS Office of Program Development and Funding.[29] In practice, that meant offering a series of information and

training sessions with current and prospective service providers to ensure that they understood and had opportunities to meet the new high standards.

- **Ongoing commitment:** Leaders also speak of adopting a Results First "lifestyle" in which research and analysis informs both program selection and monitoring. "Results First has grown from just a tool to the way we do business," Deputy Commissioner Salo said.[30] "Every time we make a major decision about programs, we review data to better understand the population being served and review research to identify the costs and benefits of different interventions. We also monitor and evaluate those programs after we implement them to make sure we get the results we expected." This process has been incorporated into the state's decision-making business model for criminal justice programming, as shown below.

New York State's Decision-Making Business Model for Criminal Justice Programming

1. Analyze population and program needs.

2. Recommend programming through cost-benefit analysis.

3. Implement programming.

4. Verify program quality (fidelty).

5. Evaluate program outcomes.

6. Confirm that results are as expected.

7. Use results to inform future funding decisions.

Source: Marc Schabses, "Cost Benefit Analysis for Criminal Justice: Deployment and Initial Application of the Results First Cost Benefit Model," New York State Division of Criminal Justice Services (2013), http://www.criminaljustice.ny.gov/crimnet/ojsa/resultsfirst/rftechnical_report_cba1_oct2013.pdf

Next steps for Results First in New York

The Division of Criminal Justice Services plans to incorporate evidence-based requirements into more of its funding streams, including juvenile justice programming. "The beauty of this approach is that it is very open and transparent. Everything that we fund must meet a high standard, and providers receive the tools they need to meet that standard. There are no surprises," said Commissioner Green. "Equally important is the human side to this work. We want to use our resources in a way that gives people the best possible chance to break the cycle of recidivism and improve their lives."[31]

Appendix

The New York Division of Criminal Justice Services used its Results First benefit-cost model to estimate the cost and impact of various criminal justice interventions. Agency leaders have used these data to identify which interventions are most likely to improve public safety and produce a positive return on investment.

State inmate (prison) programming modalities

Category	Program / Meta-analytic info	Population receiving programming	Baseline recidivism	Recidivism with programming	Taxpayer benefits	Victim benefits	Total benefits	Cost of programming per participant	Taxpayer only: Benefits minus costs	Taxpayer only: Benefit-to-cost ratio	Total: Benefits minus costs	Total: Benefit-to-cost ratio	Reduction in victimizations (per 100 program participants)
Basic skills	General education in prison — Meta-analytic effect size: -0.238; Evaluations in meta-analysis: 11	Prison general	47%	36%	$2,368	$458	$2,827	$1,493[a,j]	$875	$1.59	$1,334	$1.89	15.0
	Vocational education in prison — Meta-analytic effect size: -0.238; Evaluations in meta-analysis: 11	Prison general	47%	36%	$2,249	$435	$2,683	$2,295[a]	-$46	$0.98	$388	$1.17	14.1
		Prison high risk	69%	57%	$3,145	$918	$4,062	$2,295[a]	$850	$1.37	$1,767	$1.77	20.7
	Correctional industries in prison — Meta-analytic effect size: -0.078; Evaluations in meta-analysis: 9	Prison general	47%	43%	$816	$157	$973	$185[a,h]	$631	$4.41	$788	$5.26	5.2
	Employment: Basic training/job readiness — Meta-analytic effect size: -0.074; Evaluations in meta-analysis: 16	Prison general	47%	43%	$781	$151	$932	$940[a]	-$159	$0.83	-$8	$0.99	4.9
		Prison high risk	69%	65%	$1,031	$301	$1,332	$940[a]	$91	$1.10	$392	$1.42	6.6
		Prison low risk	17%	15%	$299	$110	$410	$940[a]	-$641	$0.32	-$530	$0.44	1.4
Chemical dependency	Drug treatment while incarcerated: Therapeutic community — Meta-analytic effect size: -.119; Evaluations in meta-analysis: 18	Prison general	47%	41%	$1,229	$238	$1,467	$1,828[a]	-$599	$0.67	-$361	$0.80	7.9
	Drug treatment while incarcerated: Residential or IOP — Meta-analytic effect size: -.172; Evaluations in meta-analysis: 6	Prison general	47%	39%	$1,747	$338	$2,085	$1,292[a]	$455	$1.35	$793	$1.61	10.9
	Drug treatment while incarcerated: Standard outpatient — Meta-analytic effect size: -.173; Evaluations in meta-analysis: 8	Prison general	47%	39%	$1,743	$338	$2,081	$426[a]	$1,317	$4.09	$1,655	$4.88	11.1
Behavioral	Cognitive behavioral intervention — Meta-analytic effect size: -.125; Evaluations in meta-analysis: 38	Prison general	47%	41%	$1,279	$248	$1,526	$1,024[a]	$255	$1.25	$502	$1.49	8.1
		Prison high risk	69%	62%	$1,772	$514	$2,285	$1,024[a]	$748	$1.73	$1,261	$2.23	11.4
		Prison low risk	17%	14%	$478	$176	$654	$1,024[a]	-$546	$0.47	-$370	$0.64	2.3
	Domestic violence perpetrator treatment — Meta-analytic effect size: +.064; Evaluations in meta-analysis: 9	Prison general	47%	50%	-$755	-$145	-$901	$1,638[c]	-$2,393	-$0.46	-$2,539	-$0.55	-4.3
Other	Work release — Meta-analytic effect size: -.080; Evaluations in meta-analysis: 7	Prison general	47%	43%	$853	$165	$1,017	$170[a]	$683	N/A	$847	N/A	5.3
		Prison high risk	17%	15%	$309	$114	$423	$170[a]	$139	N/A	$253	N/A	1.5

Local inmate (jail) programming modalities

Category	Program / Meta-analytic info	Population receiving programming	Baseline recidivism	Recidivism with programming	Taxpayer benefits	Victim benefits	Total benefits	Cost of programming per participant	Taxpayer only: Benefits minus costs	Taxpayer only: Benefit-to-cost ratio	Total: Benefits minus costs	Total: Benefit-to-cost ratio	Reduction in victimizations (per 100 program participants)
Basic skills	Employment: Basic training/job readiness — Meta-analytic effect size: -.074; Evaluations in meta-analysis: 16	Jail general	51%	47%	$999	$313	$1,312	$490[f,g]	$509	$2.04	$822	$2.68	5.8
		Jail under age 25	60%	57%	$1,201	$459	$1,660	$490[f,g]	$711	$2.45	$1,170	$3.39	7.9
Chemical dependency	Drug treatment while incarcerated: Residential or IOP — Meta-analytic effect size: -.172; Evaluations in meta-analysis: 6	Jail general	51%	42%	$2,202	$688	$2,889	$2,998[d]	-$796	$0.73	-$109	$0.96	13.3
	Drug treatment while incarcerated: Standard outpatient — Meta-analytic effect size: -.173; Evaluations in meta-analysis: 8	Jail general	51%	42%	$2,240	$696	$2,936	$1,094[d]	$1,146	$2.05	$1,842	$2.68	13.4
Behavioral	Cognitive behavioral intervention — Meta-analytic effect size: -.125; Evaluations in meta-analysis: 38	Jail general	51%	45%	$1,648	$515	$2,163	$653[f,g]	$995	$2.52	$1,510	$3.31	9.9
		Jail under age 25	60%	54%	$2,004	$773	$2,777	$653[f,g]	$1,351	$3.07	$2,124	$4.25	13.2
	Domestic violence perpetrator treatment — Meta-analytic effect size: +.064; Evaluations in meta-analysis: 9	Jail general	51%	54%	-$938	-$290	-$1,228	$1,638[c]	-$2,576	-$0.57	-$2,866	-$0.75	-5.5
Other	Work release — Meta-analytic effect size: -.080; Evaluations in meta-analysis: 7	Jail general	51%	47%	$1,049	$328	$1,378	$170[b]	$879	N/A	$1,208	N/A	6.3

State parolee programming modalities

Category	Program	Population receiving programming	5-year cumulative reconviction rate		Gross monetary benefits (per program participant)			Cost of programming per participant	Net monetary benefits (per program participant)				Reduction in victimizations (per 100 program participants)
			Baseline recidivism	Recidivism with programming	Taxpayer benefits	Victim benefits	Total benefits		Taxpayer only – Benefits minus costs	Taxpayer only – Benefit-to-cost ratio	Total – Benefits minus costs	Total – Benefit-to-cost ratio	
Supervision	**Supervision with risk need and responsivity principles** (Meta-analytic effect size: -.239; Evaluations in meta analysis: 7)	Parole general	47%	36%	$2,397	$461	$2,858	$696[c]	$875	$1.59	$1,334	$1.89	15.0
		Parole high risk	69%	56%	$3,335	$975	$4,310	$696[c]	$2,639	$4.79	$3,614	$6.19	22.3
	Intensive supervision: Surveillance only (Meta-analytic effect size: +.004; Evaluations in meta analysis: 14)	Parole general	47%	47%	-$30	-$6	-$36	$10,449[c]	-$46	$0.98	$388	$1.17	14.1
		Parole high risk	69%	69%	-$42	-$13	-$55	$10,449[c]	$850	$1.37	$1,767	$1.77	20.7
	Intensive supervision: Treatment (Meta-analytic effect size: -.205; Evaluations in meta analysis: 17)	Parole general	47%	37%	$2,011	$389	$2,399	$11,405[c]	-$9,394	$0.18	-$9,006	$0.21	8.8
		Parole high risk	69%	58%	$2,824	$826	$3,649	$11,405[c]	-$8,581	$0.25	-$7,756	$0.32	18.4
	Case management: Referral style (Meta-analytic effect size: -.074; Evaluations in meta analysis: 13)	Parole general	47%	43%	$742	$142	$884	$1,066[a]	-$324	$0.70	-$182	$0.83	4.6
		Parole high risk	69%	65%	$1,053	$304	$1,357	$1,066[a]	-$13	$0.99	$291	$1.27	7.0
		Parole low risk	17%	15%	$277	$102	$379	$1,066[a]	-$789	$0.26	-$687	$0.36	1.4
	Case management: Swift and certain (Meta-analytic effect size: -.258; Evaluations in meta analysis: 6)	Parole general	47%	35%	$2,521	$485	$3,006	N/A[l]	N/A	N/A	N/A	N/A	16.0
	Electronic monitoring (Meta-analytic effect size: -.264; Evaluations in meta analysis: 16)	Parole general	47%	35%	$2,590	$503	$3,093	$464[a]	$2,126	$5.58	$2,629	$6.67	16.2
		Parole high risk	69%	55%	$3,678	$1,070	$4,748	$464[a]	$3,214	$7.93	$4,284	$10.23	24.3
Basic skills	**Employment: Basic training/job readiness** (Meta-analytic effect size: -.074; Evaluations in meta analysis: 16)	Parole general	47%	43%	$776	$151	$927	$613[a]	$163	$1.27	$314	$1.51	4.9
		Parole high risk	69%	65%	$1,025	$297	$1,321	$613[a]	$412	$1.67	$708	$2.15	6.6
		Parole low risk	17%	15%	$297	$110	$407	$613[a]	-$316	$0.48	-$206	$0.66	1.4
	Employment: Transitional wage employment (Meta-analytic effect size: -.139; Evaluations in meta analysis: 1)	Parole general	47%	40%	$1,426	$274	$1,700	$6,600[a,k]	-$5,174	$0.22	-$4,900	$0.26	9.0
		Parole high risk	69%	61%	$1,897	$551	$2,449	$6,600[a,k]	-$4,703	$0.29	-$4,151	$0.37	12.8
		Parole low risk	17%	14%	$533	$197	$730	$6,600[a,k]	-$6,067	$0.08	-$5,870	$0.11	2.4
Behavioral	**Cognitive behavioral intervention** (Meta-analytic effect size: -.125; Evaluations in meta analysis: 38)	Parole general	47%	41%	$1,299	$253	$1,552	$919[a,g]	$380	$1.41	$633	$1.69	8.1
		Parole high risk	69%	62%	$1,767	$512	$2,278	$919[a,g]	$848	$1.92	$1,359	$2.48	11.4
		Parole low risk	17%	14%	$476	$176	$652	$919[a,g]	-$443	$0.52	-$267	$0.71	2.3
Chemical dependency	**Drug treatment in community: Residential or IOP** (Meta-analytic effect size: -.048; Evaluations in meta analysis: 5)	Parole general	47%	45%	$510	$99	$609	$2,738[d]	-$2,228	$0.19	-$2,129	$0.22	3.2
		Parole high risk	69%	66%	$676	$198	$874	$2,738[d]	-$2,062	$0.25	-$1,864	$0.32	4.5
	Drug treatment in community: standard outpatient† (Meta-analytic effect size: -.076; Evaluations in meta analysis: 4)	Parole general	47%	43%	$807	$157	$964	$992[d]	-$185	$0.81	-$28	$0.97	5.0
		Parole high risk	69%	65%	$1,080	$316	$1,396	$992[d]	$88	$1.09	$404	$1.41	6.9

Local probationer programming modalities

Category	Program	Meta-analysis	Population receiving programming	5-year cumulative reconviction rate — Baseline recidivism	5-year cumulative reconviction rate — Recidivism with programming	Gross monetary benefits — Taxpayer benefits	Gross monetary benefits — Victim benefits	Gross monetary benefits — Total benefits	Cost of programming per participant	Net — Taxpayer only — Benefits minus costs	Net — Taxpayer only — Benefit-to-cost ratio	Net — Total — Benefits minus costs	Net — Total — Benefit-to-cost ratio	Reduction in victimizations (per 100 program participants)
Supervision	Supervision with risk need and responsivity principles	Meta-analytic effect size: -.239; Evaluations in meta analysis: 7	Probation general	28%	20%	$1,809	$615	$2,424	$610^c	$1,199	$2.97	$1,814	$3.97	10.1
			Probation under age 25	39%	29%	$2,844	$1,081	$3,925	$610^c	$2,234	$4.66	$3,315	$6.43	17.6
	Intensive supervision: surveillance only	Meta-analytic effect size: +.004; Evaluations in meta analysis: 14	Probation general	28%	28%	-$45	-$15	-$60	$9,387^c	-$9,432	$0.00	-$9,447	$0.01	-0.4
			Probation under age 25	39%	39%	-$58	-$24	-$81	$9,387^c	-$9,445	-$0.01	-$9,468	$0.01	-0.5
	Intensive supervision: Treatment	Meta-analytic effect size: -.205; Evaluations in meta analysis: 17	Probation general	28%	21%	$1,577	$533	$2,110	$10,166^c	-$8,589	$0.16	-$8,056	$0.21	8.7
			Probation under age 25	39%	30%	$2,482	$944	$3,426	$10,166^c	-$7,684	$0.24	-$6,740	$0.34	15.1
	Case management: Referral style	Meta-analytic effect size: -.074; Evaluations in meta analysis: 13	Probation general	28%	25%	$563	$192	$755	$1,309^{a,b}	-$746	$0.43	-$554	$0.58	3.5
	Case management: Swift and certain	Meta-analytic effect size: -.258; Evaluations in meta analysis: 6	Probation general	28%	20%	$1,912	$650	$2,562	N/A^f	N/A	N/A	N/A	N/A	10.5
	Electronic monitoring	Meta-analytic effect size: -.264; Evaluations in meta analysis: 16	Probation general	28%	19%	$1,962	$665	$2,627	$405^{a,e}	$1,557	$4.84	$2,222	$6.49	10.9
			Probation under age 25	39%	28%	$3,143	$1,198	$4,341	$405^{a,e}	$2,738	$7.76	$3,936	$10.72	19.6
Basic skills	Employment: Basic training/job readiness	Meta-analytic effect size: -.074; Evaluations in meta analysis: 16	Probation general	28%	25%	$609	$207	$816	$236^{f,g}	$373	$2.58	$580	$3.46	3.4
			Probation under age 25	39%	35%	$948	$360	$1,308	$236^{f,g}	$712	$4.02	$1,072	$5.54	5.7
Behavioral	Cognitive behavioral intervention	Meta-analytic effect size: -.125; Evaluations in meta analysis: 38	Probation general	28%	24%	$998	$340	$1,339	$553^{f,g}	$445	$1.80	$786	$2.42	5.7
			Probation under age 25	39%	33%	$1,577	$601	$2,178	$553^{f,g}	$1,024	$2.85	$1,625	$3.94	9.4
Chemical dependency	Drug treatment in community: Residential or IOP	Meta-analytic effect size: -.048; Evaluations in meta analysis: 5	Probation general	28%	26%	$379	$129	$508	$2,750^d	-$2,371	$0.14	-$2,242	$0.18	2.3
			Probation under age 25	39%	36%	$627	$238	$865	$2,750^d	-$2,123	$0.23	-$1,885	$0.31	3.8
	Drug treatment in community: Standard outpatient	Meta-analytic effect size: -.076; Evaluations in meta analysis: 4	Probation general	28%	25%	$605	$205	$810	$1,004^d	-$399	$0.60	-$194	$0.81	3.5
			Probation under age 25	39%	35%	$984	$377	$1,360	$1,004^d	-$20	$0.98	$356	$1.35	6.0

Notes

a   Based on existing New York state programming delivered in actual setting.

b   Based on existing New York state programming delivered in comparable setting.

c   Estimated cost based on program components.

d   Based on the New York State Office of Alcoholism and Substance Abuse Services treatment reimbursement rates.

e   Based on information received from local departments/providers.

f   Based on proposed budgets submitted in response to December 2013 requests for proposals for Alternative to Incarceration programs.

g   Based on information received from a certified practitioner trainer.

h   Net cost taking into account program revenue and value of services provided.

i   State cost only, additional 7 percent borne by federal government.

j   Differential cost from standard incarceration.

k   Based on the U.S. Department of Labor's 2013 Pay for Success initiative.

l   Modality not currently operating in New York state. Cost cannot be estimated at this time. No net benefits calculated.

Sources: New York State Division of Criminal Justice Services, Office of Justice Research and Performance, July 2014

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New York State Results First Net Program Impact Table

Explanation of table terms

Class/category of program intervention modality. A description of the type or class of intervention; not all types are currently offered in New York.

Meta-analytic evidence base of program evaluations. The standardized mean difference effect size and the number of evaluations that were found to be of acceptable rigor and utilized to compute the effect size. Effect sizes sourced from Washington State Institute for Public Policy April 2012 and December 2013 meta-analyses. See Washington State Institute for Public Policy, "Return on Investment: Evidence-Based Options to Improve Statewide Outcomes - April 2012 Update," Document No. 12-04-1201 (April 2012); and Washington State Institute for Public Policy, "Inventory of Evidence-Based and Research-Based Programs for Adult Corrections," Document No. 13-12-1901 (December 2013).

Population receiving programming. The population or subpopulation used to conduct the modeling; all cohorts based on felony offender data.

Baseline recidivism. Cumulative five-year reconviction rate for each population without programming (New York-specific).

Recidivism with programming. Expected cumulative five-year reconviction rate for the population when offered a specific program, assuming that the program is delivered competently and with fidelity to its model.

Taxpayer benefits. Monetary benefits (in 2013 dollars) accrued by government due to reduced criminal justice costs from fewer reconvictions over a five-year period.

Victim benefits. Avoided tangible victimization costs such as medical bills and lost wages that are realized by society as a whole, not by government. Victim benefits based on the work of McCollister et al. See "The cost of crime to society: New crime-specific estimates for policy and program evaluation. Drug and Alcohol Dependence," 108(2010) 98-109.

Total gross benefits. Total benefits to taxpayers and society that result from one unit of program participation.

Cost of programming (per participant). Estimated cost of delivering the intervention to a single offender in New York state.

Taxpayer net benefits. The net benefit from a governmental or budgeting perspective.

Taxpayer benefit-to-cost ratio. Ratio displaying the amount of governmental return (savings) for each dollar spent on programming.

Total benefits. The net benefit to taxpayers and to society.

Total benefit-to-cost ratio. Ratio displaying the total benefit returned to taxpayers and to society for each dollar spent on programming.

Reduction in victimizations. Estimated number of victimizations avoided (via reduced recidivism) when intervention is provided to 100 participants.

Endnotes

1   New York State prioritized funds to evidence-based programs in previous grant solicitations, such as a 2009 request for proposals for residential stabilization centers, a 2010 RFP for special offender substance abuse programs (http://www.criminaljustice.ny.gov/opca/pdfs/2011satsorfpfinal3.pdf), and a 2012 RFP for alternatives to incarceration for individuals with families whose income does not exceed 200 percent of the federal poverty level (http://www.criminaljustice.ny.gov/ofpa/pdfdocs/200percentofpovertyrfp_final_8-7-12.pdf).

2   New York State Division of Criminal Justice Services, *Using Data to Inform Evidence-Based Decision Making* (January 2013), http://www.ncja.org/sites/default/files/documents/Terry_Salo_Using_Data_to_Inform.pdf.

3   Updated program totals can be found online at http://www.criminaljustice.ny.gov/opca/ati_description.htm.

4   Pew-MacArthur Results First Initiative panel interview, April 28, 2015.

5   Ibid.

6   Marc Schabses, "Cost Benefit Analysis for Criminal Justice: Deployment and Initial Application of the Results First Cost Benefit Model" (October 2013), New York State Division of Criminal Justice Services, http://www.criminaljustice.ny.gov/crimnet/ojsa/resultsfirst/rf-technical_report_cba1_oct2013.pdf.

7   Report, 2014, unpublished.

8   Pew-MacArthur Results First Initiative panel interview, July 2, 2014.

9   According to the Washington State Institute for Public Policy, cognitive-behavior therapy emphasizes individual accountability and teaches offenders that cognitive deficits, distortions, and flawed thinking processes can cause criminal behavior (http://www.wsipp.wa.gov/BenefitCost/Program/438).

10   Pew-MacArthur Results First Initiative panel interview, April 28, 2015.

11   Ibid.

12   New York State Division of Criminal Justice Services, "Request for Proposals: Alternatives to Incarceration" (2013), http://www.criminaljustice.ny.gov/ofpa/pdfdocs/ATI-RFP-Due-Sep-16-2013.pdf.

13   New York State Division of Criminal Justice Services, "Alternatives-to-Incarceration (ATI) and Employment Programs: Application for Funding" (2013), http://www.criminaljustice.ny.gov/ofpa/downloadforms/ATI-2013-14-Application-June.17.2013.doc.

14   For more information on these tools, see Council of State Governments, "Risk Assessment Instruments Validated and Implemented in Correctional Settings in the United States" (2013), http://csgjusticecenter.org/reentry/publications/risk-assessment-instruments-validated-and-implemented-in-correctional-settings-in-the-united-states/.

15   New York State Division of Criminal Justice Services, "Alternatives-to-Incarceration and Employment Programs: Application for Funding" (2013).

16   See New York State, "Investing in What Works: 'Pay for Success' in New York State Increasing Employment and Improving Public Safety" (2014), https://www.budget.ny.gov/contract/ICPFS/PFSFactSheet_0314.pdf.

17   Massachusetts also received funding through this federal grant. For more information, see http://www.dol.gov/opa/media/press/eta/ETA20131936.htm.

18   The Pew Charitable Trusts, "Iowa's Cutting-Edge Approach to Corrections: A Progress Report on Putting Results First to Use" (December 2013), http://www.pewtrusts.org/~/media/legacy/uploadedfiles/pcs_assets/2013/RFIBriefResultsFirstIowaProgressReportFINALpdf.pdf.

19   Pew-MacArthur Results First Initiative panel interview, April 28, 2015.

20   Ibid.

21   Cost-Benefit Knowledge Bank for Criminal Justice, "An Interview With Marc Schabses of the New York State Division of Criminal Justice Services" (July 25, 2013), http://cbkb.org/2013/07/an-interview-with-marc-schabses-of-the-new-york-state-division-of-criminal-justice-services/.

22   Pew-MacArthur Results First Initiative panel interview, April 28, 2015.

23   Ibid.

24   Ibid.

25   Ibid.

26   Ibid.

27   Ibid.

28   Ibid.

29   Ibid.

30   Ibid.

31   Ibid.

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PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0137
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

I am opposed to any sort of data base tracking in education intended to "follow the child" anywhere outside of the student's enrolled school district (I am not referring to statistical educational demographics.), or that would be used for anything other than that which is necessary for national security. I believe our Constitutional rights to privacy are being violated with such measures.

1)It was against our Constitutional protections that a national database be constructed. That measure would fall to the States. So what did our government do under the direction of an Obama administration, they bribed our states with money for each state to create its own database identical to every other state created databas. The purpose of creating identical databases was for the data sharing ability. And so they have created a National database right under the noses of Americans while saying it was "state led." (Now where have we heard that before?? A: Common Core) Whether the intent to create this nationalized database was criminal or not is not for me to decide; however, I believe it is incredibly and unethically dishonest.

2)Additionally, our children's private information should NEVER have been compromised through the gutting of FERPA or HIPAA by President Obama. These measures were put in place to protect our children AND our families which he signed away with wave of his pen. We can clearly see why. Someone is making money hand over fist off our data, and it does not have the best interest of American citizens (students or parents) in mind!

3)Collecting and sharing personal data/information on our children (though not exclusively to our children) alway runs the risk of profiling them, which will result in great prejudices and injustices when it makes its way into the wrong hands; which it surely will. The intent, I understand, is to collect data from early education on into the workforce. So their employers are to have access to this information? My research tells me Yes, they are. This should NEVER be allowed. This an full violation of privacy. Despite "security measures," our children's private information will be compromised, as we have already had security breeches in a local Texas school district, Katy ISD. It took two years for the data company to divulge the breech, and it was also disclosed that an additional breech had occurred. The breech was said to have been internal and accidental; but we can clearly see you cannot implement measures to protect us; and we should not trust our private information to you. With the recent hacking of the highest ranking government officials and political parties, as well as the violations of privacy that were exposed in the NSA monitoring emails and phone conversations, can we even allow ourselves to be fooled? The release of this information is child's play compared to what the government is collecting on our students and on our families.
This is clear and convincing evidence that we CANNOT be assured of protections for ours or our children's data.

4)Student portfolios should only be for purposes of education to follow the child within the district which the student attends. Student portfolios should ALWAYS remain private, under the authority and the property of parent/child, belonging to the school district only so long as the student is enrolled in their district, and should never be released publicly or privately without parent or adult student approval, barring a legal criminal investigation. Our children's data in education is currently being targeted by tech ed companies for massive profit, as is that of private individuals. It is not for fair and reasonable profit, but for unconscionable gain and greed! Our children's data has been coined by tech ed companies and Next Generation assessment commissions as "gold," "the new gold," "a treasure trove," "human capital," etc. And we should not be foolish enough to think the intention to profit off of all our citizens is not part of this push for data collection.

Sincerely,
Angela Blackburn

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0138
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

The new Commission on Evidence-based Policymaking being pushed by Speaker Paul Ryan and Senator Patty Murray , and urged (by Bill Gates and the other foundations/corporations that want access to more and more of our children's data) to establish a national student-unit record system that would allow government tracking of citizens from Pre- school throughout their careers is absolutely unconstitutional and must be stopped dead in it tracks. American citizens have not given the government the power to monitore our every waking moment. This system serves only the oligarchs and global elites and is against how our government is designed to work.... for, of and by the people.
Trump must choose a Secretary of Education prepared to dismantle the unconstitutional/illegal DOE and soon be out of a job, while removing the strings attached to education through the Department of Labor and the Department of health and human services.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0139
Comment on FR Doc # 2016-22002

Submitter Information

Name: Alice Linahan

General Comment

Parents all across the nation understand, The Workforce Innovation and Opportunity Act (WIOA) and the Every Student Succeeds Act (ESSA) had to get passed before the election. This is what locked the GLOBAL transformation of education "SYSTEM" in place, no matter if it is implemented at the local, state or federal level. With the goal of tracking and collection of data for behavior modifying adaptive assessments for workforce development. Which will be coming in with the Next Generation of Assessments and Accountability.

One major concern....

When the state and federal government are tracking students for workforce development aligned to the United Nations model, this brings in the issue of national security.

While parents across the country are becoming more and more concerned with the issue of the Federal Government monitoring, tracking and collecting data on our children, it is very alarming to learn that the Brookings Institute also has a Center for Universal Education that partners with UNESCO for the UN education agenda where there is a focus on "Global Tracking" and the need to support development of more robust systems for assessing learning outcomes.

The establishment of a National Student-unit record system should remain illegal as it is clearly unconstitutional.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0140
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

See attached file(s)

Attachments

WA Forland comment re CEBP

Comments RE: Federal Register # 2016-22002

Cynthia Forland, Director, Labor Market and Performance Analysis
Washington State Employment Security Department

Member, Department of Labor Workforce Information Advisory Committee

November 14, 2016

COMMISSION QUESTION #1: Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

Resource limitations related to data access, funding, IT, and/or staff capacity are typical challenges. In Washington state, we have made great advances in developing an evidence-building infrastructure, with corresponding frameworks, policies, practices and methods. We have not only developed longitudinal administrative data sets, but also the infrastructure to convert and analyze the data to inform policy and customer choices.

Other examples of successful approaches to developing data infrastructure include the numerous other state longitudinal administrative data sets funded, in part, under the Workforce Data Quality Initiative (WDQI) and State Longitudinal Data Systems (SLDS) grants. A good cross-state effort is the Western Interstate Commission for Higher Education's (WICHE) multi-state longitudinal data exchange (MLDE). This latter effort is important for showcasing the value of tracking individuals across state lines to understand the impact of our education, training and other investments.

COMMISSION QUESTION #3: Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of, and access to, administrative and survey data?

Streamline federal data initiatives, such as SLDS and WDQI, which may mean combining some initiatives that have overlapping goals. Existing federal funding methods for these initiatives are unpredictable, uncoordinated, and tend to promote overlapping and uncoordinated projects. If the 21st century is about lifelong learning with people moving back and forth between education and employment, or participating in employment and education simultaneously, we need to develop pre-K to career longitudinal systems, not separate education and workforce program systems.

Invest in, and continuously improve, labor market information so that high-quality data relevant for the current economy is available to guide policymakers and help customers make career, education and training decisions. Episodic, competitive grants cannot provide the solid foundation needed for this key piece of data infrastructure. For example, the last survey regarding the contingent workforce was conducted by the Bureau of Labor Statistics in February 2005 and estimates of the size of this population today vary widely as a result.

COMMISSION QUESTION #4: What data sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation and analysis purposes?

A federated exchange system that does not involve developing and maintaining a single national data repository.

COMMISSION QUESTION #5: What challenges currently exist linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

Federal and state laws and regulations governing critical sources of data are a recurring challenge. Examples include the Family Educational Rights and Privacy Act (FERPA), IRS regulations and variable state Unemployment Compensation laws.

COMMISSION QUESTION #6: Should a single or multiple clearinghouse(s) for administrative and survey data be established to improve evidence-based policymaking?

A single federal clearinghouse is not an efficient or practical approach. A more federated system with the ability to exchange information amongst states and federal agencies would be far more sustainable.

COMMISSION QUESTION #7: What data should be included in a potential U.S. government data clearinghouse(s)? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

Key data sources include administrative data on K-12 education, post-secondary education (including higher education, apprenticeships), traditional employment (e.g., Unemployment Compensation), alternative employment (e.g., IRS), and other data to assist with matching (e.g., state driver and vehicle licensing records).

COMMISSION QUESTION #8: What factors or strategies should the Commission consider for how a clearinghouse(s) should be self-funded? What successful examples exist for self-financing related to similar purposes?

The data and human infrastructure needed to build and maintain an evidence base for federal and state programs are public goods. We question the premise that the ordered exchange of that data should be self-funded, except that outside researchers and institutions should cover the marginal costs of their data acquisitions. Government entities have a role and responsibility to maintain and be good stewards of program administrative data, and should receive adequate funding and support for the integrity of those systems and legal exchanges amongst them.

COMMISSION QUESTION #9: What specific administrative or legal barriers currently exist for accessing survey and administrative data?

Programs have been developed independently and in a siloed fashion, as have the legal requirements around them, so there are numerous legal barriers. Also creating barriers are the many levels of government involved in program administration and the varied policies and practices associated with these programs.

COMMISSION QUESTION #10: How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions?"

Just to be clear, states should be considered partners to any clearinghouses, not qualified researchers and institutions. As governmental entities, state workforce agencies should have access to governmental data needed for federally required performance reports and to conduct research and evaluations. Governmental entities, especially WIOA partner agencies at the federal and state level, should have priority access to available data. The Commission could learn from state workforce agencies that provide data, selectively, to outside researchers and institutions. Given resource constraints, such uses could be limited to specific project requests that support the research agendas of federal and state agencies, as a first priority.

QUESTION #11: How might integration of administrative and survey data in a clearinghouse affect the risk of unintentional or unauthorized access or release of personally identifiable information, confidential business information, or other identifiable records? How can identifiable information be best protected to insure the privacy and confidentiality of individual or business data in a clearinghouse?

Facing high demand for government data with constrained resources, many entities are currently approaching privacy and confidentiality in an ad hoc way that involves more risk than having an organized approach with clear processes, safeguards and rules. And a carefully developed exchange system would prevent the risks associated with a single federal data repository.

QUESTION #13: What technological solutions from government or the private sector are relevant for facilitating data sharing and management?

See response to Question #1 above.

COMMISSION QUESTION #14: What incentives may best facilitate interagency sharing of information to improve programmatic effectiveness and enhance data accuracy and comprehensiveness?

- Create efficient and streamlined data collection, confidentiality, and data access processes, with excellent privacy safeguards.
- Ensure that state agencies that collect, safeguard, clean, and share data are able to benefit from the data soon after it becomes available.
- Provide state workforce agencies with adequate funding, training, and technical assistance as they fulfill their responsibilities for collecting, safeguarding and sharing information.
- Provide state workforce agencies (and their state and federal partners) the critical funding and other support needed to translate data into information that is useful to customers – including policymakers, program managers, job seekers and employers. Otherwise, only the private sector will have the capacity to build an evidence base and develop customer tools and information, which is problematic in cases where it is more efficient to develop in-house and/or cross-state solutions.
- Ensure that evidence is used to inform policy. For example, despite 25 years of evidence by federal and state partners that job search assistance and UI claimant reemployment services are high return-on-investment strategies, funding for the major programs supporting these strategies has declined significantly over the last 20 years.

COMMISSION QUESTION #15: What barriers currently exist for *using* survey and administrative data to support program management and/or evaluation activities?

Limitations exist on the use of specific data sources by states. For example, some federal data sources can be used for enforcement but not for research purposes. This includes IRS data. Given the flexibility that is being asked of states to share items like UI wage records for a broader scope of evaluation (outside of just UI program administration), the same expansion should be asked of federal agencies.

COMMISSION QUESTION #16: How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?

Based on recent history, federal, state, local, and even private sector money available for public interest services have not, and likely will not, keep up with the expanding need. That means that we can keep doing the same things but doing them for fewer people, or we can keep serving similar or expanding numbers of people but simply do less for them, or we can analyze our data and learn how to be more effective. Ideally this would not simply mean looking at data to see which services work and which don't. Instead, we should be able to use data to better understand which services work best and for whom. It is likely that most services have some effectiveness but that effectiveness varies by population served and other factors, which calls for a customized, evidenced-based approach.

COMMISSION QUESTION #17: To what extent can or should program and policy evaluation be addressed in program designs?

Government should evaluate program and service effectiveness and use findings to improve effectiveness and efficiency. That obligation is to both taxpayers in general and those our services are intended to benefit.

COMMISSION QUESTION #18: How can or should program evaluation be incorporated into program designs? What specific examples demonstrate where evaluation has been successfully incorporated in program designs?

Unemployment Insurance program "worker profiling models," if timely and regularly updated, are an example of an approach that aids state evaluation of UI programs. These predictive models incorporate changes in the economy that impact who is likely to exhaust benefits. They enable state workforce agencies to directly engage those claimants most likely to have long unemployment durations in effective reemployment strategies early in their unemployment insurance spells.

COMMISSION QUESTION #19: To what extent should evaluations specifically with either experimental (sometimes referred to as "randomized control trials") or quasi-experimental designs be institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?

The Commission should explicitly recognize there is a place for both experimental and quasi-experimental design in evaluation work. While experimental design may be the "gold standard" of evaluation, it is extremely costly and also not the most appropriate research design in many cases. Also, quasi-experimental design is more easily accepted by those who deliver services. State workforce agencies have used the results of quasi-experimental research to inform policy and practice, and should have the flexibility to use research designs appropriate to their needs.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0141
Comment on FR Doc # 2016-22002

Submitter Information

Name: Charles and Debbie Baxter
Address: United States,

General Comment

NO to collecting any information on my children, in school or anywhere else. This is a direct intervention of our individuals rights to privacy and to raising our children. Anything proposed along these lines is UnConstitutional .. both the Federal Constitution and our State Constitution. If Paul Ryan and Patti Murphy want to live in a collectivist society, then perhaps they should have Bill Gates recommend another country where they don't honor a Bill of Rights. Just NO.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0142
Comment on FR Doc # 2016-22002

Submitter Information

Name: Brian Halladay

General Comment

To Whom It May Concern,

In response to your request for comments for the Commission on Evidence-Based Policymaking. Under the Constitution, government has no right to create policies regarding education. Optimally, under the 10th Amendment, States would have enabled to develop policies and frameworks specific to the needs of their population.

As it is, a bunch of government entities, researchers, evaluators and contractors (aka "the American Institutes for Research") (which is also integrated with the Bureau of Census) will do whatever the hell they want, and be awarded whatever grant they apply for all under the guise of "developing policy" just as they have for the past 55 years.

Now, I realize that without a radical change in education policy this won't be, so I'll address the question just to be on record as opposing this effort.

The ONLY factor to consider to ensure the security and privacy of admin and survey data is to STOP gathering surveys and data. Ask yourselves, who does this benefit and why do they need this data. How can we expect data to be private when so many different technologies exist that collect data at school? What's to prevent his data being

stored in a meta-databank? And why is this allowed? Do you really care about the privacy of our students? I would contend no, you do not.

There should be no data-sharing infrastructure as it is too easy to link, merge and access the different datasets.

With the increasing propensity of organizations (including the fed government) to have data breaches the creation of a clearinghouse (which let's not fool ourselves, already exists) increases the probability of misuse and risk of cybersecurity breaches.

Children should have a right to privacy, including privacy from their own federal government. Not only does a clearinghouse provide untold uses to business and related parties (especially behavioral data) , but how are you going to restrict access to such a clearinghouse and manage the data once it's been compromised? How will you ensure my children's data isn't compromised? It simply won't be done.

One of the most over-reaching surveys ever existed was Project Talent. The results of this program served as the foundation of educational policy and programs for decades afterwards, and still exists today. More harm has come from this than good. The federal government should stay out of the data collection business, and allow education to be controlled by the states instead of federal lobbyists.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0143
Comment on FR Doc # 2016-22002

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General Comment

The First Five Years Fund thanks the Commission on Evidence-Based Policymaking for the opportunity to submit comments at this time. Please see the attached file [FFYF_Comments_Evidence-basedPolicymaking Commission.docx] for our full comments to the Commission.

Attachments

FFYF_Comments_Evidence-based Policymaking Commission (2)

First Five Years Fund

Shelly Martinez
Executive Director
Commission on Evidence-Based Policymaking
Washington, D.C.

Re: Commission on Evidence-Based Policymaking Comments, Docket ID USBC-2016-0003-0001

Dear Ms. Martinez:

The First Five Years Fund (FFYF) strongly supports the Evidence-Based Policymaking Commission's ("Commission") mission to identify effective strategies for producing and using evidence to support federal programs and policies. FFYF supports the core early learning and care programs carried out across the U.S. Department of Health and Human Services, the U.S. Department of Education, and the U.S. Department of Health Resources and Service Administration, and is committed to a well-funded, high-quality continuum of affordable early learning and care. Given our work, FFFY urges Commission Members to carefully consider the following recommendations when evaluating and identifying future Commission activities, including possibly developing findings and recommendations for Congress.

Data Use in Program Design, Management, Research, Evaluation, and Analysis

FFYF shares the Commission's interest in identifying strategies for better using data, statistics, research, and findings from evaluation to improve policies and programs. Strong government programs adopt these strategies as part of a culture of continuous improvement. Effective programs benefit from embedded evaluations, as referenced in the Commission's *Request for Comments*. FFYF encourages the Commission to examine ways to better and more routinely embed evaluation as a core element of federal programs. For example, Congress recently provided crosscutting program evaluation authority and funding to the Secretary of Education in the new Every Student Succeeds Act (ESSA, P.L. 114-95). As you examine such models, however, we also encourage you to ensure your work does not lead to an inadvertent over-investment in programs with previously demonstrated effectiveness to the detriment of innovative efforts to develop and test new ideas. Policymakers must continue to invest in innovation, while also supporting efforts to scale programs supported by greater levels of evidence. Furthermore, we recommend an approach to the evaluation of early learning and care program models that takes into consideration the varied factors in children and families' lives outside the scope of program service delivery that impact child outcomes, and more specifically, that program evaluation is intentionally tied to a theory of change that identifies intended outcomes and the underlying capacities or mechanisms on which those outcomes rest. Poorly designed studies that only focus on third grade assessment

First Five Years Fund

outcomes – using tests designed for State K12 accountability systems – do not satisfy this higher standard.

Striking a thoughtful balance between stimulating promising innovations and investment in practices with a greater evidence base is particularly important to strengthening early learning systems. Recent studies, including work by Nobel Prize-winning economist Professor James Heckman and his colleagues at the Center for the Economics of Human Development, demonstrate that early learning has moved beyond rudimentary inquiries to more sophisticated challenges related to achieving greater scale and quality. Professor Heckman's work, and other well-designed studies, demonstrates that the most effective early learning programs provide high quality, developmentally appropriate, comprehensive services for children from low-income families from birth through age 5.

As we enter into the era of greater implementation based on this existing research base, we also need continued experimentation, research and working experience that informs practice, fosters innovation and provides elected officials and the public with even more confidence to invest in systems and programs that work — and continuously improve. Dr. Jack Shonkoff, M.D. at Harvard University's Center on the Developing Child recently released a report, 'From Best Practices to Breakthrough Impacts', which highlights that while there exists a number of studies on the effectiveness of various early learning programs and interventions demonstrating the difference early childhood programs do indeed make, there is limited data available that could be used to inform replication and scalability that would result in improved outcomes at a population level. Furthermore, in evaluating program effectiveness, it is imperative that we graduate from using a broad brush in asking whether or not a program 'works', and begin asking 'which features work for whom and why?' This frame of program evaluation positions the field to advance replication of the elements that do lead to improved outcomes without being tethered to less effective elements of earlier intervention iterations. Dr. Shonkoff also recommends that in addition to conducting randomized control trials, which take several years to complete with no opportunities for mid-course corrections, program evaluation should include micro-trials that are small-scale, and short-duration field tests designed to catalyze rapid, shared learning across multiple projects in the field simultaneously.

Dr. Shonkoff and his colleagues summarized the particular challenge in the early learning field well when they wrote:

> "On the one hand, many leaders in the field are engaged in critically important efforts to improve the quality of programs, increase the effectiveness and efficiency of service delivery systems, enhance the skills and compensation of a highly diverse early childhood workforce, and encourage innovation. These efforts are happening at multiple levels across a variety of sectors—and they must be sustained. On the other hand, most decision makers urge funding

First Five Years Fund

solely for programs with previously demonstrated effectiveness, regardless of the nature or magnitude of their impacts. This widespread preference for "evidence-based" programs, many of which have produced small effects on random categories of outcomes that have not been replicated, seriously limits the likelihood of achieving increasingly larger impacts at scale over time. Indeed, many of the most compelling challenges facing the early childhood field today are linked to the absence of sufficient professional and political incentives for developing and testing new ideas"[1]

As a result, FFYF encourages the Commission to explore evidence-based structures that support and encourage federal programs and investments across a continuum from promising innovations to investments with a more robust research base. Some existing programs, such as the U.S. Department of Education's legacy *Investing in Innovation Fund (i3),* and ESSA's new *Education Innovation and Research Grants,* specifically utilize a tiered approach to investment, based on an initiative's evidence base. Exploring the efficacy of such evidence based models, while also establishing other evidence and evaluation structures that identify and document best practices for sharing, could help to fundamentally improve federal policy and practice.

Thank you for providing this opportunity to help inform the Commission's deliberations and work. We would be glad to answer any questions you may have about these ideas and FFYF's work and would be pleased to participate in future Commission events.

Sincerely,

Kris Perry
Executive Director
First Five Years Fund
1010 Vermont Avenue, NW, Suite 810
Washington, D.C. 20005
(202) 730-0941

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[1] Center on the Developing Child at Harvard University (2016). *From Best Practices to Breakthrough Impacts: A Science-Based Approach to Building a More Promising Future for Young Children and Families.* http://www.developingchild.harvard.edu

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0144
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

See attached file(s)

Attachments

PJH Platinum CEP 11 14 16docx

PJH Platinum PDF CEP 11 14 16docx

November 14, 2016

Comments Submitted to the

"Evidence-Based Policymaking Commission" (CEP)

(Created by the ''Evidence-Based Policymaking Commission Act of 2016', Public Law 114–140 114th Congress).

Submitted by: Randall Webb, MA,
Philip J. Held, PhD,

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Executive Summary

Medical care in the US is in general, of exceptionally high quality although finding the resources to provide it is a never-ending public issue in economic, moral, and political terms. Data, not surprising, are a central part of the health care sector and are fundamental to:

- Experiments to test and improve new clinical approaches, drugs, procedures and policies
- Surveillance of health and disease tracking and providing quality assessment and guidance for population health improvement
- Guiding and advising patients as well as protecting confidentiality
- Compensating and regulating the millions of suppliers
- Maintaining trust and confidence among all sectors

This Commission on Evidence Based Policy Making is focused on the use, control, and access to data - presumably specifically defined as public data paid for by the US taxpayer that are of potential use in making policy decisions based on empirical information. The public concerns which generated this commission must have been focused on access to tax payer funded data as well as protection of confidentiality.

This comment for the CEP reports on the United States Renal Data System (USRDS) a very productive and vital system that generates, controls, and widely distributes an endless volume of data that is part of the federal system that funds, monitors, and controls, the care of nearly 700,000 Americans with end stage renal disease (ESRD) – requiring dialysis therapy or kidney transplantation, as well as the millions of Americans with the preceding stages of chronic kidney disease (CKD), not at ESRD. The two primary institutions that run this program are the Centers for Medicaid and Medicare (CMS) and the National Institute of Diabetes, Digestive and Kidney Diseases (NIDDK) which is part of the National Institutes of Health (NIH). Both these institutions are part of the US Department of Health and Human Services.

The data system incrementally developed by the USRDS has been successfully made available for use by researchers – sharing, distributing standard analysis files (SAFs) and protecting sensitive data, for over 25 years – without serious mishap. Incredible volumes of detailed and extensive information, often of a confidential nature, are made available to researchers and policy makers both in and out of the government including profit and non-profit institutions. This data distribution system has been central and vital to public policy, the setting of medical guidelines, and encouragement and nurturing of a research arena second to none in the world.

The system that provides these data at the heart of the treatment of kidney failure can provide a good model to the CEP.

Statement of the Problem

Kidney disease is the 9th leading cause of death and a significant contributor to cardiovascular and diabetic deaths – it has been called both a 'disease multiplier' and a 'cost multiplier' and is a non-communicable disease that is more prevalent than diabetes mellitus in the US general population. There are about 500,000 patients on chronic dialysis therapy and nearly 100,000 patients on the kidney transplant waitlist, which continues to grow. Medicare spends $32.8 billion per year (USRDS 2016 Annual Data Report) on the treatment of patients with End Stage Renal Disease (ESRD) – 7.2% of total Medicare costs for ~1% of the population served by Medicare. Combining all sources of payment (Medicare, Medicaid, private insurance and patient obligations), ESRD patients have costs of $125,000 per patient per year and a high mortality rate of approximately 15-20% per year. The National Institute of Digestive, Diabetes and Urologic Diseases (NIDDK) typical budget amounts to nearly $2 billion per year.

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It is our understanding that the CEP is interested in developing policy recommendations to aid government policymaking. In developing policy one can either make decisions on ideological basis or on a scientific basis. If the scientific basis is chosen for such decision-making the following are minimum requirements:

- Relevant and sufficient data,
- Appropriate analytical methods and,
- Processes open to validation and reproducibility

Review of the CEPs Law's mandate makes it clear that the CEP is to develop policies based on a scientific process with an emphasis on the issue of data which involves:

1. Determining which policy questions are to be addressed
2. Identification of relevant data to address these questions
3. Identification of persons and institutions appropriate to have access to these data
4. Determining methods of accessing such data including the allocation of costs of making data available
5. When appropriate, determine procedures to protect confidentiality of sources, particularly patient-level identifiable information
6. Determining what are appropriate versus inappropriate uses of these data

Background

The United States Renal Data System (USRDS) is run jointly by the National Institute of Digestive, Diabetes and Urologic Diseases (NIDDK) and the Centers for Medicare and Medicaid Services (CMS). The USRDS was formed in response to a Congressional Mandate requiring the creation of "a National Renal [Kidney] Registry" for the US and has been operated, under contract, for over 25 years and remains a powerful and successful example of how to fulfill the 6 requirements listed above.

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1. Transparent and built on widely available data handling systems. (Past experience in working with medical data stored on varied university systems was often based on locally developed systems that were dated, poorly documented and demanding of many technician hours to accomplish even minimal goals).
2. Transferable to other data systems both in and out of government. Oracle, a relatively new operation at that time, and SAS were the foundations of all project work although other relational databases did evolve over time.
3. Inclusive of all files including cleaned analytical files, designed to save users many person-years of effort, by circumventing the need for tedious data collection and processing efforts before real analysis could begin would be made available.
4. Files designed to be consistently defined over the years to allow longitudinal analyses.
5. Development of a *Researchers Guide* to guide researchers in the use of the data.
6. Incorporation of new data sources, notably from the CMS CROWNWeb and Part D data systems, into the database as they became available.
7. Open to requests for other formulations of the data.
8. Open to merging existing data with other data sources if privacy requirements can be met.
9. Pricing these files at cost of reproduction.
10. Determining what were appropriate and inappropriate uses of the data. Research in the public interest was the general rule. Research designed to discriminate against patients for commercial reasons was not appropriate research.
11. Involved of a Scientific Advisory committee to supplement and guide the contractor's staff in insuring the purposes for which the data were released were intended for valid scientific purposes and in the public interest.
12. Inclusive of developing methods and a Data Use Agreement to protect confidentially of these medical data, which incorporated very sensitive information.

With the initiation of the USRDS, data were from two primary sources: CMS's Medicare data and primary data designed by the USRDS but collected by the ESRD Networks, a series of institutions contracted by CMS to assist in the management of the ESRD program. Dialysis

and transplant units were also tapped into to collect relevant data.

It is not an over statement to note that these handling and distribution procedures by the USRDS contractor were quite radical at the time but were ultimately immensely popular with all sorts of "stakeholders" including the research community, the media, the NIDDK, CMS, and the providers (both profit and not-for-profit).

NIDDK was pleased and proud of this new data access system:

1. NIDDK could help their grantees tackle a wider list of topics in a timely and cost-efficient manner.

2. NIDDK could gain real empirical data to assist in the design of clinical trials by use of these observational data.

3. The *USRDS Annual Data Reports* (ADRs) have been produced annually since 1989. The ADRs have become the foundational national reference on the epidemiology of ESRD and CKD.

4. Because the same files are used for the ADR and by outside researchers, the researcher's results can be benchmarked against the ADR.

5. They could carry to Capitol Hill results from a 'real world' clinical, empirical data system beyond presenting on projects mostly focused on laboratory based basic science efforts.

6. NIDDK could work jointly with CMS on a timely, highly visible and costly public health issue: the treatment of renal failure and chronic kidney disease.

CMS was pleased with the new data access system:

1. The system furthered the research into renal failure which was a pressing and highly visible costly part of Medicare

2. It furthered their (CMS) research program efforts in making research easier and less costly to support. And having qualified highly research focused data handlers provided supplemental efforts to the CMS data system which, of necessity, is focused on management and control of a multi-billion dollar billing and payment system.

3. CMS was justly proud that their incredible efforts at building, collecting, and managing a large powerful data system was receiving the recognition and credit that helped reward their efforts.

Policy makers, providers and regulatory agencies were pleased with the data access that resulted from this system:

1. More and more policy decisions could be made on the basis of hard data and not

just ad hoc information. For example Medicare Part D which was implemented many years later could draw on the real world processes facing renal failure patients and providers. Also a decision to bundle certain services provided in the dialysis process lead to substantial savings and could be monitored for unintended adverse consequences.

2. The success of these data access procedures was an essential ingredient when serious efforts were made to improve practice guidelines. (Research leading to this effort to improve patient care showed that more than 75 percent of treatment practices in the treatment of renal failure were based on hearsay, custom, and rumor).

3. These data access procedures improved fact based medicine but also had some positive unintended consequences. For example, the provider community saw there was benefit to allowing access to their own private patient data (with confidentiality protected) which of course added immensely to the type and detail of the data were available to the research community. In effect, the availability of privately collected data also made for a quality check on the federal data as well as providing an expansion of the data available from Federal sources. And the power of these data sources was shown to be contagious as the Veterans Administration subsequently joined in the efforts to assemble and use clinically relevant information system that could benefit by observing the CMS/USRDS efforts.

Selected Statistics for the USRDS Database

Item	Statistic (s)	Comments
Founded	**1988** Revolutionized Federal Medical Data Access	Architect: Randall Webb
Data Sources (For ESRD data)	Medicare; Social Security System; US Census; Primary Data Collection Organ Procurement Transplantation Network (OPTN)	Data Use Agreement between Medicare and NIDDK; also SRTR: Scientific Registry of Transplant Patients
Patient Counts	**1996-2015** ~ **2 Million** prevalent ESRD patients **In 2014:** **200,907** patients with a functioning kidney transplant **500,000** receiving chronic dialysis therapy	Chronic Kidney Disease (CKD) For CKD, the USRDS uses multiple data sources (Medicare 5% sample, Clinformatics Data Mart, data from the VA health system, NHANES, etc.
Data Volume **12/31/2015**	25 TB for Producing ADR 1.6 TB for SAF and Linkage requests sent to researchers	ADR: Annual Data Report; SAF: Standard Analysis Files (TB: terra bites)
Data and File Requests Fulfilled **2015:**	US Government: **25** Helpdesk: **51** SAF: **70**	SAF: Standard Analysis Files
Data Files Released **2015:**	**1,445**	All SAF files released in 2015 – not including separate files for individual data requests
Resulting Peer Reviewed Articles **2001 to 2015**	**90**	
Examples of Policy Based on Empirical Data	1. Payment for EPO drug 2. Bundling of Dialysis Services 3. Design of Clinical Trials and Demonstrations	

Selected Portions of the USRDS Data Documentation (Readily Available to the Research Community on the WWW)

2015 Researcher's Guide to the
USRDS Database (571 Pages).
The entire Document is available at:

https://www.usrds.org/2015/rg/2015_USRDS_Researchers_Guide_15.pdf

Preface

The Researcher's Guide is intended for investigators within and outside of the United States Renal Data System (USRDS) Coordinating Center (CC) who wish to undertake research projects using data from the USRDS database. This guide places particular emphasis on the USRDS Standard Analysis File (SAF) dataset, the primary means by which USRDS data are made available for use. The Researcher's Guide includes information needed to help researchers select and use the appropriate SAFs for the intended project.

Introduction

USRDS website: www.usrds.org
The USRDS website provides users with access to the Annual Data Report (ADR), which is available in HTML and downloadable PDF, Excel, and PowerPoint files. ADR chapters and volumes are
available in PDF; Reference Tables and the data underlying the figures and tables for each chapter are available in Excel; and, all chapter figures and tables are available in PowerPoint slides. Because of the file size, downloading some portions of the ADR may require user patience.

Data Use Agreement (available at:
https://www.usrds.org/2015/appx/3_1_USRDS_Agreement_For_Release_of_Data_15.pdf

United States Renal Data System (USRDS)
Merged Dataset Agreement for Release of Data

Project Title _____

In this agreement, "Requester Organization" means _____

A. The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), through the United States Renal Data System (USRDS) Coordinating Center, will provide the Requester data extracted from the USRDS research database (the "Data"), via download or on CDs, DVDs, or other media type. Prior to receiving USRDS data, the Requester will provide USRDS with a list of personally identifiable information (PII) so USRDS can report which of the Requester's subjects are in the USRDS end-stage renal disease (ESRD) data.

B. The sole purpose of providing the Data is the conduct of legitimate and approved biomedical, cost-effectiveness, and/or other economic research by the Requester.

C. USRDS shall not use or disclose the Requester's data for any purpose other than to create the Data extracted from the USRDS database. In the event that the Requester's data is used or disclosed for any purpose other than that covered by this agreement, USRDS will notify the Requester immediately and agree to work with Requester to address the use or disclosure. The USRDS will destroy the Requester's dataset one year after the linkage is complete unless otherwise specified by the Requester in the research proposal.

D. The Requester shall not combine or link the Data provided with any other collection or source of information that may contain information specific to individuals on the files, except where a waiver of authorization has been approved by the Requester's IRB/Privacy Board and NIDDK.

E. The Requester shall not use the Data for purposes that are not related to biomedical research, cost-effectiveness, economic and/or other epidemiological research. Purposes for which the Data may not be used include, but are not limited to,
   - the identification and targeting of under- or over-served health service markets primarily for commercial benefit
   - the obtaining of information about providers or facilities for commercial benefit
   - insurance purposes such as redlining areas deemed to offer bad health insurance risks
   - adverse selection (e.g., identifying patients with high risk diagnoses)

   Any use of the Data for research not in the original proposal must be approved by the USRDS Project Officer (PO).

F. The Requester shall not publish or otherwise disclose the Data in the files to any person or organization unless the Data have been aggregated (that is, combined into groupings of Data such that the Data are no longer specific to any individuals within each grouping), and no cells (aggregates of Data) contain information on fewer than ten individuals or fewer than five providers or facilities. The Requester shall not publish or otherwise disclose Data that identify individual providers or facilities, or from which such identities could be inferred. However, the Requester may release Data to a contractor for purposes of data processing or storage if (1) the Requester specified in the research plan submitted to the USRDS Project Officer that Data would be released to the particular contractor, or the Requester has obtained written authorization from the PO to release the Data to such contractor, and (2) the contractor has signed a data release agreement with the PO.

G. A copy of any aggregation of Data intended for publication shall be submitted to the PO for review for compliance with the confidentiality provisions of this agreement prior to submission for publication and, if not approved, shall not be published until compliance is achieved. The PO must respond within 30 days.

    The Approval Request Checklist may be found at:

    https://www.usrds.org/2015/appx/3_1_USRDS_Manuscript_Approval_Request_Checklist_15.pdf

H. Appropriate administrative, technical, procedural, and physical safeguards shall be established by the Requester to protect the confidentiality of the Data and to prevent unauthorized access to it. The safeguards shall provide a level of security outlined in OMB Circular No. A-130, Appendix III — Security of Federal Automated Information Resources, which sets forth guidelines for security plans for automated information systems in Federal agencies.

I. No copies or derivatives shall be made of the Data in these files except as necessary for the purpose authorized in this agreement. The Requester shall keep an accurate written account of all such copies and derivative files, which will be furnished upon request to the PO. The USRDS Data files covered in this data use agreement (DUA) may be retained by the Requester until the date specified by the PO in the approval letter, at which time Requester may request renewal of this data use agreement to extend the retention period to comply with legal or institutional recordkeeping requirements or to maintain the integrity of the research or research publications. If at any time during the data retention period the DUA between USRDS and CMS is canceled, the Requester will be contacted to destroy the files in their possession. At the completion of the activities in the research plan, the file(s) and any derivative files and copies shall be destroyed. At that time, the Requester will inform the USRDS and the PO in writing that the files have been destroyed.

J. For the purpose of inspecting security procedures and arrangements, authorized representatives of the NIDDK and/or of CMS will, upon request, be granted access to premises where the Data are kept.

10

Standard Analysis Files (SAFs) requested:

☐ Core

☐ Transplant

☐ Hospital

☐ CKD 5% Cohort Core

☐ CKD 5% Cohort Hospital

☐ CROWNWeb Clinical Data

☐ Dialysis Morbidity and Mortality Study (DMMS)

☐ Comprehensive Dialysis Study (CDS)

☐ Clinical Performance Measures

☐ Case Mix Adequacy (CMA)

☐ Active-Adipose Study (AAS)

☐ Medicare Claims Clinical Data

For the following SAFs, indicate the claim year(s) requested as well:

☐ Institutional Claims (pre-1989 through 2013 available)   _____

☐ Physician/Supplier Claims (1991–2013 available)   _____

☐ Part D (2006–2013 available)   _____

☐ Pre-ESRD Institutional Claims (incident years 1995-2013)   _____

☐ Pre-ESRD Physician/Supplier Claims (incident years 1995-2013)   _____

☐ Pre-ESRD Part D (incident years 2008-2013)   _____

☐ CKD 5% Institutional Claims (1992–2013 available)   _____

☐ CKD 5% Physician/Supplier Claims (1992–2013 available)   _____

☐ CKD 5% Part D (2006–2013available)   _____

Other:

☐ Provider Crosswalk   ☐ Physician Crosswalk

IMPORTANT! Specify:

☐Data ONLY on matched patients ***OR***

☐Complete SAFs, including matched and unmatched patients

_____
Requester Signature (for the Institutional Official for Data Assurance)

_____
Authorized Signatory (name, title & date)

_____
Requester Address

_____
Requester Telephone Number

Read and Acknowledged (for Primary Investigator and all co-investigators who will analyze data directly)

_____   _____   _____
Investigator / Analyst signature   Name   Date

_____   _____   _____
Investigator / Analyst signature   Name   Date

_____   _____   _____
Investigator / Analyst signature   Name   Date

_____   _____   _____
Investigator / Analyst signature   Name   Date

(attach additional signature pages as necessary)

USRDS Project Officer: Kevin C. Abbott, MD, NIDDK, NIH, Kevin.abbott@nih.gov

_____
USRDS Project Officer Signature   Date

Checklist:
DID YOU REMEMBER TO SEND:

☐ Signed copy of your institutional IRB approval memo

☐ Copy of your project proposal in recommended format
   at http://www.usrds.org/2015/appx/3/2_Outline_for_research_proposals_using_merged_USRDS_data.pdf

☐ Copy of this Data Use Agreement signed by your institutional official, PI, and all active participants.

Please note that any MODIFICATIONS or AMMENDMENTS, regardless of whether they require additional files, require a new IRB approval memo (1 above), copy of the original project proposal (2 above) with additional analyses/extractions highlighted, and a new signed Data Use Agreement (3).

Please send ALL documents (including the research protocol) in PDF format (please save the research protocol as PDF within Microsoft Word when you have completed it). AND consolidate all files into a single PDF file (using the "PDF Portfolio" feature in Adobe) when sending to the NIDDK.

"Commission on Evidence-Based Policymaking Comments"
Docket ID USBC-2016-0003

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Submitted by: Randall Webb, MA, (randall.webb@att.net)
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11. Involved of a Scientific Advisory committee to supplement and guide the contractor's staff in insuring the purposes for which the data were released were intended for valid scientific purposes and in the public interest.
12. Inclusive of developing methods and a Data Use Agreement to protect confidentially of these medical data, which incorporated very sensitive information.

With the initiation of the USRDS, data were from two primary sources: CMS's Medicare data and primary data designed by the USRDS but collected by the ESRD Networks, a series of institutions contracted by CMS to assist in the management of the ESRD program. Dialysis

and transplant units were also tapped into to collect relevant data.

It is not an over statement to note that these handling and distribution procedures by the USRDS contractor were quite radical at the time but were ultimately immensely popular with all sorts of "stakeholders" including the research community, the media, the NIDDK, CMS, and the providers (both profit and not-for-profit).

NIDDK was pleased and proud of this new data access system:

1. NIDDK could help their grantees tackle a wider list of topics in a timely and cost-efficient manner.

2. NIDDK could gain real empirical data to assist in the design of clinical trials by use of these observational data.

3. The *USRDS Annual Data Reports* (ADRs) have been produced annually since 1989. The ADRs have become the foundational national reference on the epidemiology of ESRD and CKD.

4. Because the same files are used for the ADR and by outside researchers, the researcher's results can be benchmarked against the ADR.

5. They could carry to Capitol Hill results from a 'real world' clinical, empirical data system beyond presenting on projects mostly focused on laboratory based basic science efforts.

6. NIDDK could work jointly with CMS on a timely, highly visible and costly public health issue: the treatment of renal failure and chronic kidney disease.

CMS was pleased with the new data access system:

1. The system furthered the research into renal failure which was a pressing and highly visible costly part of Medicare

2. It furthered their (CMS) research program efforts in making research easier and less costly to support. And having qualified highly research focused data handlers provided supplemental efforts to the CMS data system which, of necessity, is focused on management and control of a multi-billion dollar billing and payment system.

3. CMS was justly proud that their incredible efforts at building, collecting, and managing a large powerful data system was receiving the recognition and credit that helped reward their efforts.

Policy makers, providers and regulatory agencies were pleased with the data access that resulted from this system:

1. More and more policy decisions could be made on the basis of hard data and not

just ad hoc information. For example Medicare Part D which was implemented many years later could draw on the real world processes facing renal failure patients and providers. Also a decision to bundle certain services provided in the dialysis process lead to substantial savings and could be monitored for unintended adverse consequences.

2. The success of these data access procedures was an essential ingredient when serious efforts were made to improve practice guidelines. (Research leading to this effort to improve patient care showed that more than 75 percent of treatment practices in the treatment of renal failure were based on hearsay, custom, and rumor).

3. These data access procedures improved fact based medicine but also had some positive unintended consequences. For example, the provider community saw there was benefit to allowing access to their own private patient data (with confidentiality protected) which of course added immensely to the type and detail of the data were available to the research community. In effect, the availability of privately collected data also made for a quality check on the federal data as well as providing an expansion of the data available from Federal sources. And the power of these data sources was shown to be contagious as the Veterans Administration subsequently joined in the efforts to assemble and use clinically relevant information system that could benefit by observing the CMS/USRDS efforts.

Selected Statistics for the USRDS Database		
Item	**Statistic (s)**	**Comments**
Founded	**1988** Revolutionized Federal Medical Data Access	Architect: Randall Webb
Data Sources (For ESRD data)	Medicare; Social Security System; US Census; Primary Data Collection Organ Procurement Transplantation Network (OPTN)	Data Use Agreement between Medicare and NIDDK; also SRTR: Scientific Registry of Transplant Patients
Patient Counts	**1996-2015** ~ **2 Million** prevalent ESRD patients

In 2014: **200,907** patients with a functioning kidney transplant

500,000 receiving chronic dialysis therapy | Chronic Kidney Disease (CKD) For CKD, the USRDS uses multiple data sources (Medicare 5% sample, Clinformatics Data Mart, data from the VA health system, NHANES, etc. |
Data Volume **12/31/2015**	25 TB for Producing ADR 1.6 TB for SAF and Linkage requests sent to researchers	ADR: Annual Data Report; SAF: Standard Analysis Files (TB: terra bites)
Data and File Requests Fulfilled **2015:**	US Government: **25** Helpdesk: **51** SAF: **70**	SAF: Standard Analysis Files
Data Files Released **2015:**	**1,445**	All SAF files released in 2015 – not including separate files for individual data requests
Resulting Peer Reviewed Articles **2001 to 2015**	**90**	
Examples of Policy Based on Empirical Data	1. Payment for EPO drug 2. Bundling of Dialysis Services 3. Design of Clinical Trials and Demonstrations	

Selected Portions of the USRDS Data Documentation (Readily Available to the Research Community on the WWW)

2015 Researcher's Guide to the
USRDS Database (571 Pages).
The entire Document is available at:

https://www.usrds.org/2015/rg/2015_USRDS_Researchers_Guide_15.pdf

Preface

The Researcher's Guide is intended for investigators within and outside of the United States Renal Data System (USRDS) Coordinating Center (CC) who wish to undertake research projects using data from the USRDS database. This guide places particular emphasis on the USRDS Standard Analysis File (SAF) dataset, the primary means by which USRDS data are made available for use. The Researcher's Guide includes information needed to help researchers select and use the appropriate SAFs for the intended project.

Introduction

USRDS website: www.usrds.org
The USRDS website provides users with access to the Annual Data Report (ADR), which is available in HTML and downloadable PDF, Excel, and PowerPoint files. ADR chapters and volumes are
available in PDF; Reference Tables and the data underlying the figures and tables for each chapter are available in Excel; and, all chapter figures and tables are available in PowerPoint slides. Because of the file size, downloading some portions of the ADR may require user patience.

Data Use Agreement (available at:
https://www.usrds.org/2015/appx/3_1_USRDS_Agreement_For_Release_of_Data_15.pdf

United States Renal Data System (USRDS)
Merged Dataset Agreement for Release of Data

Project Title _____

In this agreement, "Requester Organization" means   _____

A. The National Institute of Diabetes and Digestive and Kidney Diseases (NIDDK), through the United
   States Renal Data System (USRDS) Coordinating Center, will provide the Requester data extracted
   from the USRDS research database (the "Data"), via download or on CDs, DVDs, or other media type.
   Prior to receiving USRDS data, the Requester will provide USRDS with a list of personally identifiable
   information (PII) so USRDS can report which of the Requester's subjects are in the USRDS end-stage
   renal disease (ESRD) data.
B. The sole purpose of providing the Data is the conduct of legitimate and approved biomedical, cost-
   effectiveness, and/or other economic research by the Requester.
C. USRDS shall not use or disclose the Requester's data for any purpose other than to create the Data
   extracted from the USRDS database. In the event that the Requester's data is used or disclosed for
   any purpose other than that covered by this agreement, USRDS will notify the Requester
   immediately and agree to work with Requester to address the use or disclosure. The USRDS will
   destroy the Requester's dataset one year after the linkage is complete unless otherwise specified by
   the Requester in the research proposal.
D. The Requester shall not combine or link the Data provided with any other collection or source of
   information that may contain information specific to individuals on the files, except where a waiver
   of authorization has been approved by the Requester's IRB/Privacy Board and NIDDK.
E. The Requester shall not use the Data for purposes that are not related to biomedical research, cost-
   effectiveness, economic and/or other epidemiological research. Purposes for which the Data may
   not be used include, but are not limited to,
   - the identification and targeting of under- or over-served health service markets primarily for
     commercial benefit
   - the obtaining of information about providers or facilities for commercial benefit
   - insurance purposes such as redlining areas deemed to offer bad health insurance risks
   - adverse selection (e.g., identifying patients with high risk diagnoses)
   Any use of the Data for research not in the original proposal must be approved by the USRDS Project
   Officer (PO).

9

F. The Requester shall not publish or otherwise disclose the Data in the files to any person or organization unless the Data have been aggregated (that is, combined into groupings of Data such that the Data are no longer specific to any individuals within each grouping), and no cells (aggregates of Data) contain information on fewer than ten individuals or fewer than five providers or facilities. The Requester shall not publish or otherwise disclose Data that identify individual providers or facilities, or from which such identities could be inferred. However, the Requester may release Data to a contractor for purposes of data processing or storage if (1) the Requester specified in the research plan submitted to the USRDS Project Officer that Data would be released to the particular contractor, or the Requester has obtained written authorization from the PO to release the Data to such contractor, and (2) the contractor has signed a data release agreement with the PO.

G. A copy of any aggregation of Data intended for publication shall be submitted to the PO for review for compliance with the confidentiality provisions of this agreement prior to submission for publication and, if not approved, shall not be published until compliance is achieved. The PO must respond within 30 days.

   The Approval Request Checklist may be found at:

   https://www.usrds.org/2015/appx/3_1_USRDS_Manuscript_Approval_Request_Checklist_15.pdf

H. Appropriate administrative, technical, procedural, and physical safeguards shall be established by the Requester to protect the confidentiality of the Data and to prevent unauthorized access to it. The safeguards shall provide a level of security outlined in OMB Circular No. A-130, Appendix III — Security of Federal Automated Information Resources, which sets forth guidelines for security plans for automated information systems in Federal agencies.

I. No copies or derivatives shall be made of the Data in these files except as necessary for the purpose authorized in this agreement. The Requester shall keep an accurate written account of all such copies and derivative files, which will be furnished upon request to the PO. The USRDS Data files covered in this data use agreement (DUA) may be retained by the Requester until the date specified by the PO in the approval letter, at which time Requester may request renewal of this data use agreement to extend the retention period to comply with legal or institutional recordkeeping requirements or to maintain the integrity of the research or research publications. If at any time during the data retention period the DUA between USRDS and CMS is canceled, the Requester will be contacted to destroy the files in their possession. At the completion of the activities in the research plan, the file(s) and any derivative files and copies shall be destroyed. At that time, the Requester will inform the USRDS and the PO in writing that the files have been destroyed.

J. For the purpose of inspecting security procedures and arrangements, authorized representatives of the NIDDK and/or of CMS will, upon request, be granted access to premises where the Data are kept.

Standard Analysis Files (SAFs) requested:

☐ Core

☐ Transplant

☐ Hospital

☐ CKD 5% Cohort Core

☐ CKD 5% Cohort Hospital

☐ CROWNWeb Clinical Data

☐ Dialysis Morbidity and Mortality Study (DMMS)

☐ Comprehensive Dialysis Study (CDS)

☐ Clinical Performance Measures

☐ Case Mix Adequacy (CMA)

☐ Active-Adipose Study (AAS)

☐ Medicare Claims Clinical Data

For the following SAFs, indicate the claim year(s) requested as well:

☐ Institutional Claims (pre-1989 through 2013 available)   _____

☐ Physician/Supplier Claims (1991–2013 available)   _____

☐ Part D (2006–2013 available)   _____

☐ Pre-ESRD Institutional Claims (incident years 1995-2013)   _____

☐ Pre-ESRD Physician/Supplier Claims (incident years 1995-2013)   _____

☐ Pre-ESRD Part D (incident years 2008-2013)   _____

☐ CKD 5% Institutional Claims (1992–2013 available)   _____

☐ CKD 5% Physician/Supplier Claims (1992–2013 available)   _____

☐ CKD 5% Part D (2006–2013available)   _____

Other:

☐ Provider Crosswalk   ☐ Physician Crosswalk

IMPORTANT! Specify:

☐ Data ONLY on matched patients *OR*

☐ Complete SAFs, including matched and unmatched patients

_____

Requester Signature (for the Institutional Official for Data Assurance)

_____

Authorized Signatory (name, title & date)

_____

Requester Address

_____

Requester Telephone Number

Read and Acknowledged (for Primary Investigator and all co-investigators who will analyze data directly)

_____   _____   _____
Investigator / Analyst signature   Name   Date

_____   _____   _____
Investigator / Analyst signature   Name   Date

_____   _____   _____
Investigator / Analyst signature   Name   Date

_____   _____   _____
Investigator / Analyst signature   Name   Date

(attach additional signature pages as necessary)

USRDS Project Officer: Kevin C. Abbott, MD, NIDDK, NIH, Kevin.abbott@nih.gov

_____
USRDS Project Officer Signature   Date

Checklist:
DID YOU REMEMBER TO SEND:

☐ Signed copy of your institutional IRB approval memo

☐ Copy of your project proposal in recommended format at
http://www.usrds.org/2015/appx/3/2_Outline_for_research_proposals_using_merged_USRDS_data.pdf

☐ Copy of this Data Use Agreement signed by your institutional official, PI, and all active participants.

Please note that any MODIFICATIONS or AMMENDMENTS, regardless of whether they require additional files, require a new IRB approval memo (1 above), copy of the original project proposal (2 above) with additional analyses/extractions highlighted, and a new signed Data Use Agreement (3).

Please send ALL documents (including the research protocol) in PDF format (please save the research protocol as PDF within Microsoft Word when you have completed it). AND consolidate all files into a single PDF file (using the "PDF Portfolio" feature in Adobe) when sending to the NIDDK.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0145
Comment on FR Doc # 2016-22002

Submitter Information

Name: Rachel Zinn
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General Comment

Workforce Data Quality Campaign (WDQC), a project of National Skills Coalition, is a non-profit initiative that promotes inclusive, aligned and market-relevant education and workforce data. Guided by a diverse group of national partners and state officials representing stakeholders across the education and workforce spectrum, WDQC encourages the use of data to ensure that all of our nation's education and training programs are preparing students and workers to succeed in a changing economy.

The attached document contains our comments in response to the U.S. Bureau of the Census (USBC) Notice: Request for Comments for the Commission on Evidence-Based Policymaking (Docket USBC-2016-0003-0001). We appreciate the opportunity to offer recommendations to the Commission.

Attachments

EBP_Commission_Comments_Nov2016-14fin

To: Commission on Evidence-Based Policymaking
From: Workforce Data Quality Campaign
Re: Docket ID USBC-2016-0003-0001
Date: November 14, 2016

Workforce Data Quality Campaign (WDQC), a project of National Skills Coalition, is a non-profit initiative that promotes inclusive, aligned and market-relevant education and workforce data. Guided by a diverse group of national partners and state officials representing stakeholders across the education and workforce spectrum, WDQC encourages the use of data to ensure that all of our nation's education and training programs are preparing students and workers to succeed in a changing economy.

The Commission on Evidence-Based Policymaking's examination of federal administrative and survey data provides an exceptional opportunity to address the management and use of data for measuring postsecondary education and workforce outcomes. The Commission's findings could go far beyond enabling the provision of better information for researchers and policymakers. It could also help educators, students, employers, and workers all make more informed decisions.

Overarching Challenge

The collection and use of education and workforce data can improve human capital policies that play a part in strengthening the national economy, but information still remains too disconnected to realize its full potential for improving workforce and economic development.

We advise the Commission to consider the creation of a national clearinghouse that would facilitate linkages between employment data and data about postsecondary and workforce program participants. The system should enable public access to data aggregated or anonymized sufficiently to prevent tracing back information to individuals, but disaggregated sufficiently to allow useful program analysis and research. Absent the creation of a clearinghouse, further developing the use and linkages of these data can still improve program reporting, evaluation, and research. We also recommend aligning federal laws like the Workforce Innovation and Opportunity Act (WIOA), The Perkins Career and Technical Education Act (Perkins), and the Higher Education Act (HEA) to improve data collection. Finally, we recommend providing assistance and incentives for states to strengthen their roles in the collection, use, and sharing of data.

The Commission also should issue an admonition, possibly in its final report, to remind audiences that data alone will not drive policy improvements, and that human factors will influence how data are interpreted and used. While policy improvements should become more likely because of better data, linkages, and access, we must continually work to create a culture of responsible data use. Federal data policies should be regularly assessed and refined as thinking and technology change.

Below are recommendations organized according to questions that are the most pertinent to our remit of improving the collection and use of data for education and workforce policies and programs. Our comments incorporate input from multiple national and state experts.

COMMISSION QUESTION #1: Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

Through our work with states and federal agencies over the past several years, we have observed the following effective practices for using data to inform workforce development policy:

- Convene relevant stakeholders to identify high-priority policy questions, then develop a longitudinal data infrastructure to enable meaningful analysis to answer these questions.
- Allow states (and their agents) to access this information to assist with required program reporting and evaluation, and further tailor information for their specific needs.
- Outline the importance of data linkages, privacy, and security. Select systems that ensure privacy, security, and confidentiality.
- Educate the public and policymakers on the merits of data collection and use, and particularly on the importance of labor market information.
- Facilitate and encourage the incorporation of data into easy-to-use tools that fulfill specific stakeholder needs.
- Invest in technical assistance and professional development to ensure that data managers know how to use data to inform policy choices.

More detailed examples of these practices and proposals are included in answers to the questions below.

COMMISSION QUESTION #2: Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?

Ensuring that privacy and security are integrated with the development of new data linkages or the creation of a national clearinghouse will be essential for building trust and support for the Commission's recommendations.

Policies established to guide system development and use should always address privacy and security. Moreover, these policies should be transparent, meaning that they should be published, and also communicated in a way that will be understood by relevant stakeholders.[1]

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[1] Several important federal laws and rules applicable to privacy and confidentiality were covered during the Commission's meeting of September 9, 2016, including The Office of Management and Budget Circular A-130, the 1974 Privacy Act, the Confidential Information Protection and Statistical Efficiency Act (CIPSEA), and the Family Educational Rights and Privacy Act (FERPA).

To reduce risk, the following basic practices should be followed:

- Only collect data that are needed. This limits the opportunity for revealing personal information, and has the added benefit of reducing burden on data providers, collectors, and systems.
- Ensure that publicly available data are aggregated or otherwise stripped of all information that could be used to identify particular individuals or employers.
- Avoid willful disclosure or inappropriate use. Convey consequences to all relevant parties.

We also encourage the use of the following best practices:

- Promote research: Maintaining privacy, confidentiality and security is essential, but it should not be construed as a reason to pull back on research. Data policies should explicitly allow research, policy analysis, and program evaluation, in addition to publication of aggregate performance outcomes.
- Transparency: Each agency that has administrative data should publish their process for data-sharing with researchers and policymakers; including identifying what data the agency has and are available for sharing, the mechanism for requesting access, specific timelines for making decisions, and the specific individuals who are authorized to make decisions about access. The process should also identify who is eligible to access data and for what purposes, what security measures are required for maintaining the data that are ultimately received, and any fees imposed for preparing the data.
- Create Memoranda of Understanding: Craft standard templates for memoranda of understanding (MOUs) to ensure that personnel are sharing and using information according to consistent guidelines.
- Take into account different cultural perspectives: Residents have different levels of comfort about government and other entities having access to personal data. Sensitivity to different perspectives on privacy should shape how recommendations are made and how privacy is addressed in data collection.

Technological advances should be explored and used, with any plan including provisions for regularized assessments to adopt improved practices and adaptation to evolving security threats. Currently, two technological innovations may be worth exploring in particular:

Tiered access allows layers of access and aggregation using the same foundational data sets. This technological solution could also eliminate the need to hold different data sets in different locations or among disparate systems with varied levels of security.

California provides a good example of tiered access. The California Community Colleges Chancellor's Office career and technical education (CTE) "LaunchBoard" tool, which links education data and wage records, provides community college employees with login access to detailed dashboards that analyze outcomes of CTE programs. The same underlying data is used to create "Salary Surfer," [2] which is a publicly-available tool that allows users to see the median salaries of postsecondary programs at California's community colleges.

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[2] Cal-PASSPlus, "About the LaunchBoard," https://www.calpassplus.org/Launchboard/About.aspx

Texas has made some of the biggest strides in data integration, and provides different types of users with access to specific portions of its workforce database. The U.S. Government Accountability Office (GAO) described the Texas data infrastructure in its recent review of Workforce Innovation and Opportunity Act (WIOA) reporting. Texas agencies draw on multiple data systems that share information through regular, automated exchanges. The data from these systems are compiled in a separate system, called The Workforce Information System of Texas (TWIST) web reports, where UI wage data and other data are merged with participant information and then sent to the U.S. Department of Labor (DOL).[3] TWIST uses a system providing different levels of restricted access so agencies can see individual-level outcomes for only their own participants.[4]

Synthetic data are artificial data sets that are similar to, but are not the raw, confidential data from which they are derived. A statistical model is created that adjust specific data fields so that individual-level data no longer corresponds to real people, but the data set as a whole maintains the characteristics of the original. Because the data are not tied to real people, confidentiality rules do not apply.

Analysts can access these data that have the properties of the real data, without facing the same restrictive barriers in addressing their research questions. The types of inferences that may be drawn from synthetic data, however, will be more limited. Therefore, the fact that these data sets are synthetic must be made clear so researchers and other users can take into account the limitations of these data sets for appropriate use.[5]

The Maryland Longitudinal Data System (MLDS) Center has embarked on a multi-year project to create synthetic data sets, a project which was funded by a portion of a grant from the U.S. Department of Education (ED).[6] The U.S. Census Bureau's Longitudinal Employment-Household Dynamics (LEHD) program uses partially synthetic data to examine workers' residential patterns.[7]

COMMISSION QUESTION #3: Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of, and access to, administrative and survey data?

Rationalizing the federal data landscape would require significant changes to multiple laws, but it could cut costs and reduce security risks by cutting down on the number of redundant data sets scattered across government, and could also make the creation of a national clearinghouse more manageable. In the answer to Question #7, we identify federal data sets that deserve consideration. In

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[3] U.S. General Accountability Office, "WIOA Performance and Accountability Data," March 2016, p. 12, http://www.gao.gov/assets/680/675642.pdf
[4] Barry Stern, "Stepping Up: State Developments in SNAP Employment & Training Data," March 2015, Workforce Data Quality Campaign: Washington, DC, p. 5.
[5] R. Jarmin, T. Louis, and J. Miranda, "Expanding the Role of Synthetic Data at the Census Bureau," Center for Economic Studies, February 2014, ftp://ftp2.census.gov/ces/wp/2014/CES-WP-14-10.pdf
[6] University of Maryland, College of Education, "MLDS Center Investigates the Creation of Synthetic Data," Web News Release, December 2015, http://www.education.umd.edu/CollegeNews/2015/wnrMLDSdata.html.
[7] U.S. Census Bureau, "Confidentiality Protection," OnTheMap Help and Documentation, http://lehd.ces.census.gov/applications/help/onthemap.html#!confidentiality_protection

particular, revising access policies for wage record sources would greatly improve the quality of information for performance reporting and analysis. For example, access to the Department of Health and Human Services' National Directory of New Hires (NDNH) data, which includes actual hire dates in addition to quarterly wages, would help to inform workforce development programs on earnings and indicate how long it takes people to return to work.

In addition to revising the organizational structure of data systems, the federal government should align data definitions and performance metrics across key U.S. laws that authorize education and workforce development programs. Consistent definitions would streamline data collection and provide comparable information, facilitating program collaboration and allowing policymakers to have a holistic view of human capital development.

WIOA passed in 2014 with wide bipartisan approval to help job seekers succeed in the labor market by better coordinating access to employment, education, training, and support services. Since then, government agencies significantly increased their collaboration to issue rules and guidance on performance reporting, making WIOA a useful guidepost by which to align reporting requirements with other programs related to those services. We advise the Commission to take a closer look at the following laws and programs for alignment of definitions and metrics:

Perkins – This law, which governs career and technical education, is currently due for reauthorization. The revised law should use the WIOA definition of "postsecondary recognized credential," which includes degrees, licenses, and industry-recognized certificates and certifications. This inclusive definition reflects growing evidence that many types of credentials can give students career opportunities. In addition, Perkins should include employment outcome metrics aligned with WIOA for postsecondary students.

HEA - While this law drives a large portion of postsecondary funding, the current law, last reauthorized in 2008, does not require performance reporting to address employment outcomes. ED currently publishes a College Scorecard with employment outcome information, using annual data on employment from the Department of the Treasury. Legislative language formalizing the ED College Scorecard should consider how that information aligns with other federally-mandated scorecards, especially training provider reporting required by WIOA. WIOA performance reporting requires quarterly metrics based primarily on UI wage records held by states, so the data source is different. Furthermore, WIOA focuses on short-term outcomes of less than one year, whereas the College Scorecard's figures show median earnings 10 years after graduation. Having comparable data on education and training providers, with interval snapshots showing short-term and long-term outcomes, would provide a clearer, broader view for consumers.

Supplemental Nutrition and Assistance Program Education and Training (SNAP E&T) - As an example of agency progress toward alignment, the Department of Agriculture's Food and Nutrition Service (FNS) recently established four national metrics that all states must report for SNAP E&T participants, which closely align with core measures in WIOA.[8] For example, outcomes metrics must

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[8] U.S. Department of Agriculture, Food and Nutrition Service, "Supplemental Nutrition Assistance Program (SNAP): Employment and Training Program Monitoring, Oversight and Reporting Measures," Federal Register, March 24, 2016, https://www.federalregister.gov/documents/2016/03/24/2016-06549/supplemental-nutrition-assistance-program-snap-employment-and-training-program-monitoring-oversight

now include the number and percentage of E&T participants and former participants who are in unsubsidized employment during the second and fourth quarters after completion of participation in E&T; and the median quarterly earnings of all current and former participants who are in unsubsidized employment during the second quarter after completion of participation in E&T.[9] FNS consulted with DOL when it created the new metrics.

Temporary Assistance for Needy Families (TANF) - WIOA requires that TANF be a partner program in the federally-supported One-Stop work center system (if a governor does not opt out), and encourages states to include TANF as part of the comprehensive state workforce plans required under WIOA. The TANF program currently lacks performance requirements relating to participant outcomes. TANF reauthorization is overdue and will present an opportunity for alignment with WIOA. The Commission should recommend that states be authorized to at least have the option of negotiating performance rates for credential attainment, skills gains, employment, and earnings for work-eligible individuals to collect better data on outcomes and align these data with WIOA.[10]

COMMISSION QUESTION #5: What challenges currently exist in linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

Although having data linked across stages of education, training and employment holds an incredible amount of promise for informing education and workforce development, a number of persistent hurdles still prevent linkages of state and federal data. Legal barriers and lack of capacity have presented challenges for government agencies and institutions to collect, process, and use data in ways that make it possible to match data on a systematic basis. Moreover, with an inconsistent application of definitions and metrics across laws and programs, such as those discussed above, it will be hard to develop a set of common standards that could support an integrated clearinghouse where data could be linked.

Two barriers worth revising through legislative action are the Family Educational Rights and Privacy Act (FERPA) and the HEA ban on a federal student record system.

Family Educational Rights and Privacy Act (FERPA) – (20 U.S.C. 1232g; 34 CFR Part 99) – This law to protect student education records should be amended for clarity. Current federal regulations elaborating on statutory FERPA language allow education entities to designate an "authorized representative" to evaluate education (including job training) programs. Authorized representatives, such as workforce agencies, may receive individual-level student data. This regulation is crucial for allowing education and workforce data linkages.

Although state education and workforce agencies are commonly able to collaborate and produce longitudinal analysis of education through to workforce outcomes, misinterpretation of FERPA

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[9] Loretta Robertson, "SNAP E&T Reporting Measures & Data Sources," USDA – Food and Nutrition Service, webinar slides, September 14, 2016, http://www.workforcedqc.org/sites/default/files/files/SNAP%20ET%20Data%20Webinar%20Sept2016.pdf

[10] "Temporary Assistance for Needy Families: Reauthorization Recommendations," National Skills Coalition, Washington, DC: July 2016, http://www.nationalskillscoalition.org/resources/publications/file/Temporary-Assistance-for-Needy-Families-Reauthorization-Recommendations_July2016.pdf

continues to cause roadblocks. Amending FERPA to incorporate the regulatory language into the statute itself would help to reassure public officials and facilitate data linkages.

The Higher Education Act (HEA) ban on a federal student record system - (P.L. 110-315, Sec. 113). The ban on a federal student record system took effect with the last reauthorization of HEA in 2008. A federal student record system used for all postsecondary students would allow for building a more complete picture of postsecondary paths, especially for transfer students and working adults who attend school part-time. Through linkages with employment data, a federal student record system also would allow more accurate aggregate reporting on graduates' employment and wages. [11]

Although the federal government is banned from retaining individual-level data, most of this information is already collected and held by a range of agencies and institutions. States have made strides in developing similar systems for their students, but with much effort and cost. More than half of states have mechanisms in place to show student progress in education and careers, but they lose precious information when these students go onto schools or find employment in other states.

Given that states have faced hurdles in accounting for information on students who leave their state borders, and also for those who do not appear in state-held UI wage records (e.g. self-employed and military), several initiatives have helped to fill in these gaps. Examples of systems for states to directly share wage records include:

- **The Wage Record Interchange System I and II (WRIS/2)** allows states to exchange quarterly UI wage records through an automated clearinghouse system that directs queries and manages flow of data between states. The DOL operates this exchange system through a cooperative agreement with Maryland. The system has been challenged by slow response times from states in returning queried data.

  Because WRIS/WRIS2 is not a central database, but rather a system that facilitates transfer of requested individual-level UI records, state officials must manually gather the wage records to respond to queries. This is instructive for the Commission when considering different models for a federal clearinghouse. A process that requires individual agencies to manually respond to data requests, even if those requests come through a central clearinghouse, may pose a capacity challenge and result in delays in data exchange.

- **The Western Interstate Commission for Higher Education's (WICHE) Multistate Longitudinal Data Exchange (MLDE)** created a data sharing arrangement between Hawaii, Idaho, Oregon, and Washington. Each state contributed to a data set containing information on over 190,000 students who graduated from a public high school and/or began at a public

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[11] HEA: Sec. 113. Database of Student Information Prohibited. Part C of title I (20 U.S.C. 1015) is further amended by adding after section 133 (as added by section 112 of this Act) the following: ''Sec. 134. Database of Student Information Prohibited. (a) Prohibition.—Except as described in subsection (b), nothing in this Act shall be construed to authorize the development, implementation, or maintenance of a Federal database of personally identifiable information on individuals receiving assistance under this Act, attending institutions receiving assistance under this Act, or otherwise involved in any studies or other collections of data under this Act, including a student unit record system, an education bar code system, or any other system that tracks individual students over time.''

postsecondary institution in the state. The data set included information on enrollments, postsecondary credential attainment, and wage records so researchers could look at employment outcomes and subsequent enrollments of students after completing a program of study. About half of graduates had employment records in the same state where they earned a credential. MLDE enabled states to find wage records for an additional 9 percent to 22 percent of students, depending on the state.[12] The project is in the process of expanding to include over 10 states.

In addition, there are two notable processes that allow states to access employment data held by federal agencies:

- **Federal Employment Data Exchange System (FEDES)** - DOL operates an exchange system through a cooperative agreement with Maryland that allows states to query relevant wage records from the U.S. Department of Defense and Office of Personnel Management files. This system has helped states fill in UI wage record gaps for mandated performance reporting, but the participating federal agencies prohibit use of this data for broader research purposes.

- **LEHD data pilot** – This Census program — which holds UI wage records, Office of Personnel Management files, and tax data for self-employed workers — has nationwide coverage except for Wyoming. Key data has been covered for over ten years and the collection continues to grow. Census recently agreed to conduct a pilot program with the University of Texas (UT) System to collect student records from UT and link them with LEHD employment data, to produce aggregate employment outcomes. UT already collects employment outcomes information about students who remain in Texas. This project is intended to show what happens with the students who move out of state, and will provide more information on the utility of harnessing LEHD data for larger-scale research projects on postsecondary and workforce outcomes.

COMMISSION QUESTION #7: What data should be included in a potential U.S. government data clearinghouse(s)? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

The streamlining of information systems through the creation of a national clearinghouse could reduce the burden on agencies that have had to submit the same data multiple times, and strengthen data security and privacy by using a system with better privacy protection and security protocols.

A national clearinghouse(s) should include employment data that allows for the calculation of reliable and comparable employment outcomes for students across education and workforce programs. It

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[12] Brian Prescott and Patrick Lane, "Fostering State-to-State Data Exchanges," *Envisioning the National Postsecondary Data Infrastructure in the 21st Century*, Postsecondary Data Collaborative paper series, Institute for Higher Education Policy, Washington, DC: May 2016, http://www.ihep.org/sites/default/files/uploads/postsecdata/docs/resources/fostering_state-to-state_data_exchanges.pdf. For more information about WICHE's MLDE project, visit http://www.wiche.edu/longitudinalDataExchange

also should include information on a wide array of postsecondary students and jobseekers – including part-time students, and all students at education and training providers that receive federal aid. Because of the changing nature of education and career paths, the clearinghouse should include information on all meaningful credentials — certificates, licenses, certifications — not only two- or four-year degrees. The Commission should recommend overturning the HEA ban on a federal student record system and the ban on a federal database of WIOA data, so that we can have a nationwide, inclusive data set to show how people are moving through a variety of education pathways.

A number of the most relevant, currently-available data collections include:

- **LEHD** at the U.S. Census Bureau, which includes UI wage records submitted by all states, except for Wyoming, Office of Personnel Management files, and tax data for self-employed workers.

- **NDNH**, under the Department of Health and Human Services, which also contains UI wage records submitted by states, employment data for most federal workers, and data that includes employees' dates of hire.

- **Tax records from the Social Security Administration and the Treasury Department** - in limited instances, agencies have found ways to use these data to show employment outcomes on programs. The LEHD program at Census has used records to fill in gaps on information for the self-employed. In an example provided during the Commission's inaugural public event, Prof. Raj Chetty shared how he used Treasury data to show correlation between social mobility and where people grew up.

- **Student record information** - ED's Integrated Postsecondary Education Data System (IPEDS) collects information nationwide by institution, but has limited utility for linking with other data sets when students (not institutions) are the unit of analysis.[13] Individual-level student data is kept at ED's Federal Student Aid office, but only includes students receiving Title IV federal aid and is maintained in antiquated data systems that inhibit meaningful analysis. The College Scorecard links this financial aid student data with employment data from Treasury to calculate institutional employment outcomes.

  The National Student Clearinghouse (NSC), a non-profit organization, illustrates the potential for a federal student record system. It collects individual-level student data on a voluntary basis from institutions that use it to facilitate required reporting. The NSC operates under contract as an agent of each school to allow for FERPA-compliant data exchanges and has received approval to operate from ED's Federal Student Aid office. NSC is not, however,

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[13] Jamie Rorison and Mamie Voight, "Putting the Integrated Back into IPEDS: Improving the Integrated Postsecondary Data System to Meet Contemporary Data Needs," Postsecondary Data Collaborative paper series, Institute for Higher Education Policy, Washington, DC: May 2016, http://www.ihep.org/sites/default/files/uploads/postsecdata/docs/resources/putting_the_integrated_back_into_ipeds.pdf

obligated to meet the same privacy standards as ED or other federal agencies, [14] or a national clearinghouse that would be created by the federal government. In addition, NSC primarily serves institutions. Its central mission does not include offering transparency about higher education.

Additional data collection would enhance the abovementioned resources, such as data on hours worked and occupation. DOL has been running a pilot program to assess the utility of adding hours worked and job titles to wage records. If successful, this additional information could fill in knowledge gaps in administrative data: whether people are earning at a full-time or part-time rate, and whether they are working in occupations related to their program of study.

Some legal/administrative and technical barriers would need to be overcome to include data in a national clearinghouse:

- **Legal /administrative barriers** – Several key legal barriers, or clarifications, would be necessary before incorporating data into a national system:

    o   Lifting the ban on a federal student record system (2008 reauthorization of HEA), Higher Education Opportunity Act, P.L. 110-315, Sec. 113 currently prohibits the provision of a national database on student information, and would need to be overturned or amended to allow for inclusion of such information in a national clearinghouse.

    o   Linkages with employment data in LEHD or NDNH are currently limited. States voluntarily provide wage data to LEHD through a data sharing agreement that restricts how data may be used. Wyoming recently withdrew from the arrangement, illustrating that renegotiating the agreement with states to allow incorporation into a federal clearinghouse would be challenging. NDNH data may only be used for purposes specifically enumerated in the Social Security Act.

    o   Lifting the ban on a national database under WIOA (Pub. L. 113-128, Sec. 501 (b) would be necessary to include data on workforce program participants in a national clearinghouse.

- **Informational barriers for linking data** – linking employment data with student records usually requires matching personally identifiable information, such as Social Security Numbers (SSNs), and first and last names. Tax and wage records usually SSNs, but many student records do not. Some states have taken on the challenge of trying to match student

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[14] Clare McCann and Amy Laitinen, "The College Blackout: How the Higher Education Lobby Fought to Keep Students in the Dark," New America, Washington, DC: March 2014, https://s3.amazonaws.com/www.newamerica.org/downloads/CollegeBlackoutFINAL.pdf

information to wage records without SSNs, for example, by using department of motor vehicle records to serve as a check that improves the probability of matching other data sources.[15]

COMMISSION QUESTION #9: What specific administrative or legal barriers currently exist for *accessing* survey and administrative data?

Legal and administrative barriers that obstruct the inclusion of employment and education data into a federal clearinghouse also restrict access to individual-level data by external entities for program evaluation and research. These issues include some of those addressed above in question 7.

Linkages with employment data in LEHD or NDNH are currently limited. States voluntarily provide wage data to LEHD through a data sharing agreement that restricts how data may be used. Wyoming recently withdrew from the arrangement, illustrating that renegotiating the agreement with states to allow incorporation into a federal clearinghouse would be challenging. The original process of negotiating the sharing of state wage record data with Census took years, and in some instances required legislative changes in states. Substantial staff resources in federal and state government are dedicated to re-negotiating those arrangements as they expire in each state – a process which can be challenging. NDNH data may only be used for purposes specifically enumerated in the Social Security Act.

State laws on UI confidentiality may make it challenging for states to contribute data to NDNH or LEHD if they are accessed for broader purposes through a federal clearinghouse.[16] The Center for Regional Economic Competitiveness conducted a survey of all states and found variance in their interpretation of various federal and state laws applicable to wage record information.[17] The variance in accessing information for matching data causes hurdles for reporting on employment and wage outcomes within states, and between states where certain agreements have been established for matching data across borders.[18]

It would also be useful to amend FERPA to incorporate current regulatory language that allows an "authorized representative" to evaluate education programs, broadly defined as including job

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[15] National Association of State Workforce Agencies (NASWA), Labor Market Information Subcommittee, "Access and Use of Drivers' License Files by State Labor Market Information Offices; Advancing the Cause," Washington, DC: March 2016.

[16] See Title 20, Section 603, of the U.S. Code of Federal Regulations (20 CFR § 603)—The Federal State Unemployment Compensation Program; Confidentiality and Disclosure of State Unemployment Compensation Information. State laws vary on how they address the sharing of education and workforce-related information.

[17] "Balancing Confidentiality and Access: Sharing Employment and Wage Data for Policy Analysis and Research," Center for Regional Economic Competitiveness and the Labor Market Information Institute, Washington, DC: May 2015, http://www.lmiontheweb.org/download/2015-05/Report--_Data_Confidentiality_and_Sharing_-_CREC-LMI_Institute_-_May_2015.pdf

[18] Ibid. The Center for Regional Economic Competitiveness is currently assessing state laws and regulations that govern business revenue and UI wage data disclosure. The project will determine best practices for maintaining the safety of data and for expanding access to confidential data for policymakers and researchers.

training. The "authorized representative" clause is important for allowing education and workforce data linkages.

COMMISSION QUESTION #14: What incentives may best facilitate interagency sharing of information to improve programmatic effectiveness and enhance data accuracy and comprehensiveness?

The federal government uses incentives to promote data sharing within states and between states and the federal government. These practices could inform further recommendations of the Commission, especially on the subject of creating a national clearinghouse.

Tie greater funding to the provision of data – Within the context of greater funding for the development of state longitudinal data systems, the Commission could recommend that funding be tied to states providing data to a national clearinghouse. For example, states that apply for DOL's Workforce Data Quality Initiative (WDQI) grants must agree to participate in the WRIS 2 system that facilitates wage record matching across states for education and workforce performance reporting. This incentive in the existing WDQI grant program has proven effective in motivating some states to join, so that 42 states, plus the District of Columbia and Puerto Rico, now participate in WRIS2.

Invest in training data stewards and users – While tying funding to the use of data for policy, it will be important to invest in technical assistance and professional development to ensure that data managers know how to collect quality data, follow privacy and security rules, and effectively use data to inform policy choices.

Promote public facing information – Encourage agencies to provide user-friendly information to help customers select the training and education programs that best suit their needs. Public and political support would be helpful in generating the will and resources for creating a national clearinghouse. Support for data collection and system development will strengthen as employers, workers, students, and policymakers increasingly benefit from the use of this information and as long as highly sensitive information remains confidential and secure.

Conclusion

We would like to thank the Commissioners for their work on this subject, and the opportunity to comment through this written submission. Should you have questions or want to request additional information, please contact:

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General Comment

See attached file(s)

Attachments

AISP-EPBC-161114

Memorandum

Subject: Request for Comments

To: Shelly Martinez, Executive Director/ Commission on Evidence-Based
                 Policymaking, Department of Commerce

From: Dennis Culhane, Co-PI; Matthew Hill, Executive Director/ Actionable
                 Intelligence for Social Policy, University of Pennsylvania

Date: November 12, 2016

Overarching Questions

1. Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

Yes. The Actionable Intelligence for Social Policy (AISP) Expert Panel reports address all of these issues. Our four expert panels ("Legal Issues and Agreements," "Governance, Policies and Procedures," "Data Quality and Minimum Data Standards," and "Technology and Data Security") consist of state and local representatives who have built and successfully operated Integrated Data Systems (IDS) and are part of the AISP IDS Network, as well as academic experts in these areas. The reports will describe the policies and procedures and the data governance strategies that will enable states and counties to navigate the process required to securely store, link, encrypt and analyze individual-level administrative data. The panels also provide recommendations for the processes of reviewing research requests for data, credentialing and authenticating researchers, making data accessible remotely through "data views" while restricting analysts' access to the actual data, and automated disclosure review for research results.

2. Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?

Our panel of technology and data security experts (computer scientists, state system administrators, technologists) will be proposing a secure approach for states and local governments to share data using state of the art encryption, and to bring in outside data sets that could be securely linked. There are many examples that could be replicated in the US and in Europe where researchers can view and remotely access research data sets, review statistical output, but not have access to the actual data. These data sets exist for a time limited period in a secure fashion.

While there are many technological approaches to ensure data security and privacy, there are three other domains that must also be addressed—legal, procedural, and physical security safeguards. Physical security can be as simple as maintaining locked offices and hardened work stations that meet federal security standards. Legally, administrative data must be protected through a series of agreements that clearly stipulate data use and access and how data will be handled in compliance with federal and state laws. Procedural safeguards should also be a focus, including review committees or a data governance board that approves use and access, sets routine data audits, operates according to transparent business procedures, as well as clearly defined processes and procedures that are created and revised through a collaborative process of participating stakeholders.

Data Infrastructure and Access

3. Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?

At the state and local level, states should be incentivized to store data, maintain detailed codebooks, and create record linkage systems that permit authorized users to access these data in a secure environment. Pending FERPA guidance from the U.S. Department of Education (DOE) shows how education data can be stored in such an IDS.[1] Similarly, the U.S. Department of Housing and Urban Development (HUD) has authorized its Office of Policy Development and Research (PD&R) to enter into a Data License Agreement with research organizations (including Integrated Data Systems) when policy-relevant research questions can only be answered by using personally identifiable information in the possession of HUD.[2] We recommend that states get similar guidance regarding Department of Labor (DOL) wage records and All-Payer Health Claims data, two of the most important datasets that are currently accessed by policy analysts and researchers, but only in a handful of states. States are seeking clear guidance from federal agencies that outlines the authority and procedures by which DOL and All-Payer data can be stored securely and linked with encrypted identifiers, and anonymized for permissible evaluation, audit and planning purposes.

4. What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation, and analysis purposes?

At the federal level, we encourage the development of an infrastructure that would enable government agencies and researchers to supply datasets in a standard format, with the opportunity to access and link with national earnings records and other federal survey data. At the state and local level, we propose the development of: (1) a standardized data infrastructure

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[1] See Michael Hawes, Protecting Student Privacy While Creating and Using Integrated Data Systems: Requirements and Best Practices. AISP Developing Sites Conference. University of Pennsylvania. Dec. 3, 2014.

[2] See https://www.huduser.gov/portal/research/pdr_data-license.html.

model that will allow governments to securely link, store and analyze encrypted individual-level administrative data, and which will be as uniform as possible across states and counties based on federally mandated minimum data elements and security standards; and (2) a shared evaluation transactions platform that will enable jurisdictions and evaluators to propose and negotiate research projects, sign data use agreements and financial contracts, run analyses and communicate results, and track projects, at a cost-efficient and scalable level, requiring minimal burden and human resources demands from already overburdened government agencies. States and local governments shouldn't have to reinvent the wheel or replicate the procedural apparatus necessary to create such a data infrastructure and transaction platform, which is why we suggest the creation of a low-cost, scalable IDS for states and counties, and a system-wide governance board comprised of state and local officials to provide oversight to the effort.

5. What challenges currently exist in linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

Successful examples of linking state and local data to federal data include HUD's Data License Agreement process which allows states to store HUD tenant data for pre-approved purposes and evaluations (see Q3). Additionally, the DOE's pending FERPA guidance shows how education data can be stored in an IDS (see Q 3). We encourage a similar solution for the All Payer Claims Databases (APCDs) as well as state labor and wage data, or Unemployment Insurance (UI) records.

6. Should a single or multiple clearinghouse(s) for administrative and survey data be established to improve evidence-based policymaking? What benefits or limitations are likely to be encountered in either approach?

We think a single, shared Clearinghouse for state and local governments is advisable (or that at least one be started as soon as possible), and that it should be governed by a committee or board of jurisdictional representatives, researchers, and computer scientists. Such a national infrastructure wouldn't replace state and county-level IDS installations, but would allow these local jurisdictions to tap into a shared set of standardized security mechanisms, open source tools, analytic approaches, and a shared transactions process system that would provide automated project management and tracking. While state and local governments need to retain authority over their own data, approval of projects, and review and release of results, they should be offered the opportunity to participate in such a shared system and transaction platform, to reduce their costs and human resources burdens.

7. What data should be included in a potential U.S. government data clearinghouse(s)? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

We think that a minimum number of data domains and high quality data sources should be included in a federal government data clearing house. These domains include: earning records, social security disability, retirement and mortality data, Medicaid and Medicare claims records,

housing assistance recipient data, and federal prison admission and discharge records. Within each of these domains there are variables that are audited regularly for reporting, operating, and billing purposes. Regular reliance on the accuracy of these data means that they are of a higher quality than other administrative data that are not commonly used for such purposes.

8. What factors or strategies should the Commission consider for how a clearinghouse(s) could be self-funded? What successful examples exist for self-financing related to similar purposes?

We think that the Clearinghouse could be self-funded through one of the following three scenarios: (1) A <u>variable pricing</u> or "pay per use" model, in which researchers would be charged a fee for each data request made through the clearinghouse. The cost of such requests might vary depending if the research sought to link their own survey data up with government data, or alternatively, if they simply sought to access existing government data. (2) An <u>annual license</u> model, in which researchers or their institution/agency would pay a subscription fee for unlimited data requests made through the clearinghouse over a set period of time. (3) A <u>hybrid</u> model in which researchers or their institution/agency would pay a subscription fee, and then an additional fee depending on the number of data requests made in a set period of time. Successful administrative research centers in Europe and Canada operate on these types of pricing models.

9. What specific administrative or legal barriers currently exist for accessing survey and administrative data?

We know of no major legal barriers to accessing survey and administrative data. The federal laws (and most state laws) governing most health, education, human service, housing and earnings records, allow for the sharing of administrative data for various analytic purposes, including audit, evaluation, planning and research. For instance, HIPPA guidelines allow for the use of Protected Health Information (PHI) for research, testing and evaluation so long as the research contributes to "generalizable knowledge," the researchers have gained the required IRB approval, and the research is carried out with a "limited dataset" that contains no direct personal identifiers.[3] Similarly, the pending FERPA guidance permits schools to link their administrative data in an IDS so long as the linkage is for a legitimate educational purpose, and the research conducted is for the school district and intended to improve the quality of instruction.[4] Similar research exceptions exist for Federal Alcohol and Substance Abuse

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[3] See Iliana Peters, <u>National Forum on Youth Violence Prevention: HIPPA Privacy Rule Considerations</u>. AISP Developing Sites Conference, Nov. 1, 2011. FERPA also requires that a data use agreement be signed between the researcher and the data provider.

[4] See Michael Hawes, <u>Protecting Student Privacy While Creating and Using Integrated Data Systems: Requirements and Best Practices</u>. AISP Developing Sites Conference. University of Pennsylvania. Dec. 3, 2014.

Treatment Records (42 CFR Part 2), the Homeless Management Information System (HMIS), and the Privacy Act (5 USC 522 (a) (7)).[5]

10. How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions?"

The Commission should define "qualified researchers and institutions" as academic, non-profit or government researchers or data analysts with graduate (PhD/MA) training in the social sciences who have IRB training in the protection of human subjects and the ability to ensure the scientific integrity of their research by submitting it to a peer review process. Administrative and survey data should be made available to such researchers in a deidentified or aggregate form, after a data request proposal has first been reviewed by a governing board for its merit and feasibility, as well as fit with the priorities of a particular government agency.[6]

11. How might integration of administrative and survey data in a clearinghouse affect the risk of unintentional or unauthorized access or release of personally-identifiable information, confidential business information, or other identifiable records? How can identifiable information be best protected to ensure the privacy and confidentiality of individual or business data in a clearinghouse?

The integration of the data in a Clearinghouse should take place on a secure server or in a secure federated data environment, and researchers should be presented access to that data only in deidentified and/or aggregate form so that they never have direct access to individual records or identified data. Researchers should use the Clearinghouse to send queries to the data, remotely analyze it, and get results, after first being authenticated and certified. Access should be differentiated, such that no person could ever see identified, individual level records, and such that organizational or business information could be seen in a deidentified manner, and kept private while viewed at a record level.

12. If a clearinghouse were created, what types of restrictions should be placed on the uses of data in the clearinghouse by "qualified researchers and institutions?"

First, research proposals using protected individual records should be reviewed and approved by a data governing board consisting of representatives from the government agencies with the legal authority over the data. Only projects that meet both the human subjects requirements of the relevant IRB, and the data custodial responsibilities of the agencies should be approved for research. Research datasets should be created per the research request that are based on encrypted identifiers. Research datasets can be set aside for remote access through a secure

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[5] See John Petrila, Legal Issues in the Use of Electronic Data Systems for Social Science Research, In John Fantuzzo and Dennis Culhane (eds.). Actionable Intelligence: Using Integrated Data Systems to Achieve a More Effective, Efficient and Ethical Government, 2016: pp. 39-76.

[6] See AISP (2015), Governance Process, University of Pennsylvania.

portal for a time-limited period. Researchers should be credentialed and authenticated in order to obtain access. Researchers should not be permitted to have record level views of individual data that has not been otherwise fully anonymized. Records that are sensitive, such as business records, but are not as sensitive or protected as PII, may be viewable at the record level. However, all results should go through a disclosure review process before release to assure that no identifiable information is revealed.

13. What technological solutions from government or the private sector are relevant for facilitating data sharing and management?

Several states and counties in the US that belong to the AISP network, along with sites in Canada and Europe, have developed IDS system architectures that permit the secure transmission of data, reliable record matching techniques, and the anonymizing and encryption of data to reduce the risk of reidentification. In addition, these systems provide researchers with either restricted on-site access or secure remote access to data views (e.g. statistical tables) with a minimum cell size, reducing the risk of redisclosure, and ensuring that data access is permitted only for authenticated users.[7] All released data go through a disclosure review process as well. A variety of technology solutions are embedded in these systems, including secure encryption and record transmission, linkage of hashed records, anonymization of data, systematic perturbation of data (differential privacy), automated disclosure review, and other methods. Some might be needed in a given solution, but not necessarily all.

14. What incentives may best facilitate interagency sharing of information to improve programmatic effectiveness and enhance data accuracy and comprehensiveness?

Federal, state and local government agencies should be fully incentivized to use their program administrative funds to pay for evaluation on a more consistent and widespread basis, using administrative data. Administrative data provide an important, valuable and underutilized resource, that are available at low to no cost to these agencies (costs for data systems are already administratively underwritten in most cases). Federal agency encouragement or even requirement that administrative funds be used to support rigorous program evaluation would be potentially transformative. Special federal program initiatives or demonstrations should require as part of successful application that states or local governments include the use of linked administrative data for the evaluation, including even a requirement that federal funds be used to support the development of an on-going infrastructure for the storage and linkage of administrative data for these purposes. Federal research agencies (NIH, NIJ, IDS, HUD PDR, HHS entities) should create specific programs or priorities for the funding of evaluation and research demonstration projects that use linked administrative data or that support the

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[7] See for instance, Kerina Jones et al (2014). A case study of the Secure Anonymous Information Linkage (SAIL) Gateway: A privacy-protecting remote access system for health-related research and evaluation. Journal of Biomedical Information; and Prashant Kumar (2016), An Overview of Architectures and Techniques for Integrated Data Systems Implementation, In John Fantuzzo and Dennis Culhane (eds.). Actionable Intelligence: Using Integrated Data Systems to Achieve a More Effective, Efficient and Ethnical Government, pp. 105-124.

creation of an on-going infrastructure in support of this work. Such incentivization would lead to a nationally scaling up of integrated data systems relatively quickly across the country. Simultaneously, agencies should be further encouraged to assess the reliability, validity, accuracy, completeness and coverage of each data element in their possession, and to score them for the scientific integrity. Incentives should be provided for agencies to systematically improve the scientific integrity of data elements, and to create new systems of reliable data collection as necessary.

Data Use in Program Design, Management, Research, Evaluation, and Analysis

15. What barriers currently exist for using survey and administrative data to support program management and/or evaluation activities?

A widespread (mis)perception exists that administrative data are not accessible to external evaluators or other agencies due to legal barriers, such as FERPA, the Privacy Act or HIPAA. Limited infrastructure for processing requests also means that requests linger for long periods and are often never reviewed or approved. Fears about agency exposure for poor or incomplete data often lead to multiple procedural barriers being mounted to defend against inquiries. Fears about negative evaluation outcomes create a climate of wariness about external evaluators who are unknown, who may not behave ethically or with a shared partnership ethos regarding the work. A lack of personnel exist to manage the basic activities for evaluation, including processing requests, linking the records, issuing agreements, contracts or procurements, as necessary, and keeping track of projects and their review.

16. How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?

First, data, statistics, and research results generated from a descriptive epidemiological study of a high-priority social problem can be used to provide a population-based understanding of a particular social problem (e.g., extent of the problem, distribution across key population groups, societal costs associated with the problem, etc.). This is true for issues like criminal justice, educational achievement gaps, high cost health care users, child welfare outcomes, homelessness, or opiate addiction among others. Predictive analytics can then be used to identify factors and subpopulations associated with positive outcomes for those affected by these problems, and to conceptualize theories of change regarding effective intervention strategies that can be developed. Finally, the interventions can be tested for their effectiveness for the populations affected by the problem. These can take the form of randomized control trials that involve multiple low-cost investigations to find out what works best for whom, quasi-experiments, or other evidence-building efforts.[8]

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[8] For more on this three-part approach see John Fantuzzo et al (2017). The Integrated Data System Approach for Government: Producing Actionable Intelligence through an Ongoing Problem-Solving Process. Forthcoming in the Journal of Policy Analysis and Management.

17. To what extent can or should program and policy evaluation be addressed in program designs?

We think that program and/or policy evaluations should be included in any program design, and that they are key to a process of continuous program improvement that uses data, evidence, and evaluation to improve outcomes. Moreover, we view the development of administrative data systems as a key to producing high-speed, low-cost evaluations, such as randomized control trials (RCTs) to test social program innovations.[9] The results of such evaluations can be used to modify and improve program design through a continuous process of routinized organizational inquiry, and/or through planned, larger scale social experiments. Program funding should include administrative fees that support rigorous evaluation and use of integrated administrative data.

18. How can or should program evaluation be incorporated into program designs? What specific examples demonstrate where evaluation has been successfully incorporated in program designs?

In general, "pay for success" efforts have been effective in requiring rigorous evaluation designs as part of their development and implementation. The use of private funds and performance benchmarks that trigger payment has put a major focus on the measurement and evaluation of these efforts. The federal government should similarly require rigorous evaluations and performance benchmarks to be measured reliably and continuously to assure programs are meeting their objectives, including objectives (or even secondary benefits) that may be experienced through other agency programs, and which therefore require routine record linkage across agencies in order to be measured. Pay for success efforts have shown a great willingness to assess these multiagency impacts, and have forced agencies to share data in order to understand and measure them. Program evaluation requirements or significant incentives attached to federal program spending could encourage a new generation of innovation and testing of social program ideas, built upon the multiagency views provided by integrated administrative data systems.

19. To what extent should evaluations specifically with either experimental (sometimes referred to as "randomized control trials") or quasi-experimental designs be institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?

We think that evaluations with experimental designs (or randomized control trials or RCTs) should be institutionalized in programs, and combined with administrative data systems. The use of integrated administrative data in RCTs allows research to include more information on

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[9] For more on the use of program evaluation to improve program outcomes and policy innovation, see: http://www.aisp.upenn.edu/tag/program-evaluation/.

the individuals included in the trial (or in matched comparison groups on pre-existing characteristics or covariates). Furthermore, the use of already-collected administrative data greatly reduces the costs associated with these sorts of rigorous evaluations, especially when accessed through integrated data systems with a well-established, multi-purpose infrastructure. RCTs using this type of data reduce the cost of program evaluation while still maintaining rigorous standards, making it possible for government officials to use scientific evidence about "what works" to increase government effectiveness. There are numerous examples where such institutionalization of RCTs has been successful in improving a variety of government programs, including criminal justice probation, child welfare case management services, parenting interventions, and workforce development programs among others.[10]

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[10] See Coalition for Evidence-Based Policy (2012), How Low-Cost Randomized Control Trials Are Possible in Many Areas of Social Policy; David Bornstein (2014), In the Long War on Poverty, Small Victories That Matter, New York Times, January 8; David Leonhardt (2014), The Quiet Movement to Make Government Fail Less Often, New York Times, July 15.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0147
Comment on FR Doc # 2016-22002

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General Comment

Chairperson Katharine Abraham, University of Maryland
Co-Chair Ron Haskins, Brookings Institution
Commission on Evidence-Based Policymaking
Docket ID USBC-2016-0003

Dear Chairperson Abraham, Co-Chair Haskins, and Commissioners,
As members of the Postsecondary Data Collaborative (PostsecData), we appreciate the
opportunity to provide comments to the Commission on Evidence-Based Policymaking.
We seek to assist the Commission in achieving its statutory objectives to develop a
strategy for increasing the availability and use of data in order to build evidence about
government programs, while protecting privacy and confidentiality. The PostsecData
Collaborative is a coalition of organizations that advocates for the use of high-quality
postsecondary data to inform policymaking, institutional improvement, and consumer
choicewith the broader goal of improving outcomes for all students, while closing equity
gaps. Our group includes participants from a large swath of the higher education
community, including experts and organizations that represent students, states,

researchers, advocates, the business community, and institutions and systems of higher education. Through the Collaborative, we seek consensus among our diverse set of organizations on key postsecondary data issues, particularly those that impact students.

This letter intends to answer a subset of the questions posed by the Commission in its request for comments, as well as address outstanding questions from the Public Hearing on October 21, 2016. Some of our recommendations for Commission action apply to multiple questions and are marked accordingly. The undersigned organizations recommend the following:

1. Promote best practices in privacy and security for interconnected data systems. (Q: 2)
2. Leverage existing data to decrease burden, streamline reporting, and answer critical stakeholder questions. (Q: 1, 7)
3. Make recommendations that address the administrative and legal barriers to data linking and access. (Q: 5, 9)
4. Expand access to wage and labor market information for postsecondary outcomes. (Q: 1, 5)
5. Align definitions and metrics across federal laws. (Q: 3)
6. Recommend that Congress overturn the ban on a federal student-level data system. (Q: 9)

PostsecData partners agree that the federal government plays a key role in collecting and reporting consistent, comprehensive postsecondary data in ways that promote student success, especially considering the federal government's significant annual investment in student financial aid. However, the current disconnected, duplicative, and incomplete data systems do not allow for a cohesive postsecondary data ecosystem, where the data that are collected can be used for policymaking and consumer information purposes. PostsecData supports the Commission in its endeavor to streamline federal data collections and data systems.

Please find attached our complete comments.

Thank you for your focus on improving the structure and utility of the national data infrastructure. If you have questions or would like to discuss these issues further, please contact Mamie Voight, Vice President of Policy Research at the Institute for Higher Education Policy (mvoight@ihep.org, 202-587-4967). To learn more about the Postsecondary Data Collaborative, visit our website at www.ihep.org/postsecdata.

Sincerely,
Advance CTE
Association for Career & Technical Education
Association of Public and Land-grant Universities
Data Quality Campaign
Institute for Higher Education Policy
NASPA - Student Affairs Administrators in Higher Education
New America
The Education Trust

The Institute for College Access & Success
Workforce Data Quality Campaign
Young Invincibles

Attachments

PostsecData CEP Comments 11.14.16 (1)

Chairperson Katharine Abraham, University of Maryland
Co-Chair Ron Haskins, Brookings Institution
Commission on Evidence-Based Policymaking
Docket ID USBC-2016-0003

Dear Chairperson Abraham, Co-Chair Haskins, and Commissioners,

As members of the Postsecondary Data Collaborative (PostsecData), we appreciate the opportunity to provide comments to the Commission on Evidence-Based Policymaking. We seek to assist the Commission in achieving its statutory objectives to develop a strategy for increasing the availability and use of data in order to build evidence about government programs, while protecting privacy and confidentiality. The PostsecData Collaborative is a coalition of organizations that advocates for the use of high-quality postsecondary data to inform policymaking, institutional improvement, and consumer choice—with the broader goal of improving outcomes for all students, while closing equity gaps. Our group includes participants from a large swath of the higher education community, including experts and organizations that represent students, states, researchers, advocates, the business community, and institutions and systems of higher education. Through the Collaborative, we seek consensus among our diverse set of organizations on key postsecondary data issues, particularly those that impact students.

This letter intends to answer a subset of the questions posed by the Commission in its request for comments, as well as address outstanding questions from the Public Hearing on October 21, 2016. Some of our recommendations for Commission action apply to multiple questions and are marked accordingly. The undersigned organizations recommend the following:

1. Promote best practices in privacy and security for interconnected data systems. (Q: 2)[1]
2. Leverage existing data to decrease burden, streamline reporting, and answer critical stakeholder questions. (Q: 1, 7)
3. Make recommendations that address the administrative and legal barriers to data linking and access. (Q: 5, 9)
4. Expand access to wage and labor market information for postsecondary outcomes. (Q: 1, 5)
5. Align definitions and metrics across federal laws. (Q: 3)
6. Recommend that Congress overturn the ban on a federal student-level data system. (Q: 9)

PostsecData partners agree that the federal government plays a key role in collecting and reporting consistent, comprehensive postsecondary data in ways that promote student success, especially considering the federal government's significant annual investment in student financial aid. However, the current disconnected, duplicative, and incomplete data systems do not allow for a cohesive postsecondary data ecosystem, where the data that are collected can be used for policymaking and consumer information purposes. PostsecData supports the Commission in its endeavor to streamline federal data collections and data systems.

1. Promote best practices in privacy and security for interconnected data systems. (Q: 2)
In its recommendations regarding data linkages, the Commission must address the importance of privacy, security, and confidentiality; all conversations about data require a critical examination of data privacy and security protocols and inclusion of practices vetted by data security experts. For postsecondary data in particular, the U.S. Department of Education's National Center of Education Statistics (NCES) has established an excellent reputation for maintaining data security, as well as protecting and de-identifying student data for academic and policy research. Additionally, the Commission should review and

incorporate federal standards under the Federal Information Security Management Act (FISMA) and the Family Educational Rights and Privacy Act (FERPA), as well as those set by the National Institute of Standards and Technology (NIST), as they represent the most robust standards for protecting data. It is critical that the Commission construct de-identification protocols for the elements included in an education record and standards to determine who has access to the data.

Generally, policies recommended by the Commission should outline the importance of data linkages and transparency, while emphasizing the need to utilize best practices in privacy and security. The Commission should look to state system examples, like the University of Texas System Dashboard[2] and California Community Colleges' Launchboard,[3] where these postsecondary and workforce data are integrated, with different users having varied access to the data. This user-based, tiered approach to data access secures the data, protects the privacy of the students included in the data set, and allows stakeholders to access aggregate data to use for decision-making and policymaking purposes.

The Commission must frame all of its recommendations in ways that promote responsible data use, with clear consequences for failure to do so. All publicly available data should be presented in aggregate form, stripped of information that could be used to identify specific individuals or employers. Administrative data should not be sold or used for any purposes – commercial or non-commercial – outside of their intended use. Willful disclosure and inappropriate use of data must be avoided, with offenders fined and/or prosecuted.

2. **Leverage existing data to decrease burden, streamline reporting, and answer critical questions. (Q: 1, 7)**

In order to provide information to drive the decisions of policymakers, institutions, and students, existing administrative data should be leveraged and linked. Data from federal sources like U.S. Department of Education (ED), Social Security Administration (SSA), the Department of Defense (DoD), and Department of Veterans Affairs (VA), when linked, provide valuable data on important subgroups of students who are often overlooked, including Pell Grant recipients, student loan borrowers, and student veterans. Linking these data sources will illuminate opportunities to eliminate duplicative collections and decrease reporting burden for data providers. Without these data, policymakers, institutions, and students cannot answer critical questions about postsecondary access, success, post-college outcomes, and affordability:

- o How many low-income, Pell Grant recipient, first-generation, veteran, adult, transfer, and part-time students, who make up the new majority on today's campuses, attend each college? Do these students graduate?
- o How long does it take students, particularly students who enter with less academic preparation or fewer financial resources, to complete college?
- o Do the students who don't graduate transfer, or do they drop out?
- o How much do different types of students borrow, and how do their repayment outcomes vary?
- o Can students find jobs in their chosen field, and how much do they earn?

To answer these questions, with or without a student-level data system, there are a number of state and federal datasets that can and should be leveraged. These include: (1) the Department of Health and Human Services National Directory of New Hires (NDNH) and the U.S. Census Bureau's Longitudinal Employer Household Dynamics (LEHD) program, which both include Unemployment Insurance (UI) wage records submitted by states to answer workforce and outcomes related questions; (2) SSA and the Internal Revenue Service (IRS), which have individual tax records that, in limited instances, agencies have found ways to use to report employment and earnings outcomes at the program level to better understand student outcomes in the workforce; (3) ED, which houses the National Student Loan Data System (NSLDS) and Integrated Postsecondary Education Data System (IPEDS), which include information on financial aid

and student access and success that can be disaggregated to see progress for student subpopulations; and (4) the DoD and VA, which house data on student veterans, financial aid, and recruiting and can be used to answer these questions specifically for the veteran population.

It is imperative that data collections are limited to those metrics that have a specific and valuable purpose to meeting administrative, policymaking, and research needs. These collections should also include a robust reporting function, returning data for benchmarking and improvement back to colleges and programs and adding value for the data providers. Any clearinghouse or data system solution that is considered by the Commission should focus on answering critical questions about student outcomes, balancing reporting burden with analytic value, and including outcomes data around employment and earnings for all students, within all postsecondary levels and workforce programs.

3. **Make recommendations that address the administrative and legal barriers to data linking and access. (Q: 5, 9)**

There are barriers that the Commission will need to consider when making recommendations related to federal data. First, political support is absolutely necessary to accomplish these goals. Whether it is the creation of the proposed national clearinghouse, linking federal administrative data in other ways, or recommending changes to federal law to create a student-level data system, policymakers must champion legislation and push for resource allocation. The Commission will need to mitigate concerns about the size and role of the federal government as a data steward, as well as fear that students' privacy will be violated. PostsecData strongly supports adopting comprehensive privacy and security standards that are informed by best practices in the field. A tiered, user-based access system would provide each stakeholder with the data necessary for decision-making, while protecting the student data housed in the system. A deep exploration and understanding of these issues is paramount for success in leveraging federal administrative data for policymaking purposes.

Second, the Commission should consider changes to statute that may be necessary to meet these goals, depending on the data included in a national clearinghouse. The Higher Education Opportunity Act of 2008 includes a ban prohibiting the creation of a federal postsecondary student-level data collection; a similar ban exists in the Workforce Innovation and Opportunity Act of 2014. With these bans in place, a comprehensive, national approach will require linking other data sources at the federal and state levels. Data sharing around UI wage records varies from state to state, and some state laws do not currently allow for sharing across state lines. Many states have passed privacy and security legislation over the past few years[4], creating barriers to sharing data across the local, state, and federal levels, as well as confusion as to when data sharing is permissible. [5]

Finally, technical barriers may complicate the implementation of a robust national clearinghouse. Some of the states that passed privacy and security legislation ban collection of social security numbers with educational records, which complicates data matching. In many cases, employment and education data matching requires personally identifiable information, like Social Security Numbers (SSNs), and first and last names. Tax and wage records usually include this information, but student records vary from state to state and may not include all of the required information for complete matching. The Commission should consider the mechanisms for matching these data and processes for how to approach unmatched data. Addressing some of the aforementioned legal barriers around student-level data systems and data sharing could help to alleviate these problems. Access to IRS and SSA data is highly controlled for privacy and security, and understandably so. However, as the federal government moves toward a more streamlined federal data system – potentially through a national clearinghouse – privacy and security standards and

processes, like role-based access, should be implemented to ensure quality data, accurate linkages, and complete security of all data.

4.   Expand access to wage and labor market information for postsecondary outcomes. (Q: 1, 5)
Students and policymakers are particularly interested in better information about post-college outcomes and employment measures for schools and programs. Right now, data and metrics on employment and earnings are limited to voluntary initiatives,[6] like College Measures,[7] state dashboards, and the College Scorecard. The Commission should explore wage and labor market information datasets to understand the return on personal investment for students and families, as well as the economic return on federal and state investments in higher education. The federal government needs to create efficient, strategic processes for managing employment data. Sources for these data vary in completeness and require legislative or executive actions to link the data. First is the Census Bureau's LEHD program or NDNH, which, as previously mentioned, utilize state UI wage records. When linked, UI wage records are able to show mobility, but exclude all federal employees and the self-employed. The Federal Employment Data Exchange System (FEDES) and Wage Record Interchange System (WRIS/WRIS2) datasets also provide state level data, but because of restrictions on data use for performance reporting, research, and evaluation, policymakers will need to renegotiate when those data are available to use for these purposes.[8] A more complete federal option is to use SSA and IRS tax records, which should include records for all taxpayers.

In the absence of a comprehensive national data solution, states are linking a limited set of education and labor market information data regionally, through efforts like the Western Interstate Commission on Higher Education's (WICHE) Multistate Longitudinal Data Exchange (MLDE). Currently operating in four states (Hawaii, Oregon, Washington, and Idaho), state data exchange efforts like the MLDE require extensive memoranda of understanding between the states and require navigating data privacy and security laws at the state level. Through this system, states discover new information about the impact of state policies and provide needed evidence for institutional accountability and benchmarking. The challenge of this system is that when scaling to a 50-state system, incomplete geographic and institutional coverage constrains its utility, as many state systems do not include private institutions.[9] State-based wage data contain information only on workers in that state, so linking data across states is necessary to capture student mobility. Without mobility data, efforts like College Measures are limited to post-college outcomes only for students who remain in state. Additionally, a lack of capacity and funding at the state and local levels has created challenges to collecting, processing, and using these data. The viability of a state-based solution is contingent upon a sustainable funding stream. Sources such as the State Longitudinal Data System Grant Program and Workforce Data Quality Initiative could provide this necessary support.

5.   Align definitions and metrics across federal laws. (Q: 3)
Establishing common definitions for data metrics across federal laws would reduce administrative burden and create comparable outcomes across federal programs. Federal laws like the Higher Education Act, the Workforce Innovation and Opportunity Act, the Perkins Career and Technical Education Act, and the Elementary and Secondary Education Act contain similar metrics that should be streamlined. While these recommendations would require Congressional action, consistent definitions would cut costs and reduce security risks by minimizing the number of redundant data sets and collections across the federal government. The Commission should propose a legal framework that uses the proposed national clearinghouse to streamline current agency collections and data sets by aligning metrics around:
- Student enrollment rate in colleges and programs
- College Readiness
- College and program completion

- Employment rate or job placement rate
- Earnings
- Credential Attainment

Having an aligned set of metrics across federal agencies would synergize existing reporting and allow consumers to make informed decisions about programs that span agencies. Standard definitions would also create opportunities to combine and expand data dashboards and reporting for additional purposes, including consumer information and regulatory compliance. For example, the College Scorecard could include data from the Department of Labor's administration of WIOA reporting in order to show training program outcomes and serve as a resource for students to understand outcomes for different career pathways. High school scorecards could also include college matriculation rates to show how students in schools and districts progress on to higher education. These data have the potential to illustrate different education pathways and outcomes for all students.

6. **Recommend that Congress overturn the ban on a federal student-level data system. (Q: 9)**

The statutory bans in the Higher Education Act and the Workforce Innovation and Opportunity Act on a federal student-level data system stifle the ability of policymakers to answer questions about our postsecondary system, limit the information available to consumers, and impose unnecessary burden onto institutions. The Commission should recommend that Congress overturn the ban and encourage ED and the Department of Labor to engage with the higher education community to design and implement a student-level data system. This system would create a nationwide, inclusive data set that shows how students move through higher education and their post-college outcomes. This system would allow for disaggregation by key student characteristics, like Pell Grant receipt, race/ethnicity, and others, and illuminate evidence for future policymaking around closing equity gaps and strengthening the federal investment in higher education and postsecondary programming. Given the sensitive nature of record level data, the Commission should recommend rigorous data privacy and security policies to govern this system, including all those mentioned in section 1.

Thank you for your focus on improving the structure and utility of the national data infrastructure. If you have questions or would like to discuss these issues further, please contact Mamie Voight, Vice President of Policy Research at the Institute for Higher Education Policy (mvoight@ihep.org, 202-587-4967). To learn more about the Postsecondary Data Collaborative, visit our website at www.ihep.org/postsecdata.

Sincerely,

Advance CTE
Association for Career & Technical Education
Association of Public and Land-grant Universities
Data Quality Campaign
Institute for Higher Education Policy
NASPA - Student Affairs Administrators in Higher Education
New America
The Education Trust
The Institute for College Access & Success
Workforce Data Quality Campaign
Young Invincibles

APPENDIX

Questions addressed in the request for comments, taken from the Federal Register[10]:

1. Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

2. Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?

3. Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?

5. What challenges currently exist in linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

7. What data should be included in a potential U.S. government data clearinghouse(s)? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

9. What specific administrative or legal barriers currently exist for accessing survey and administrative data?

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[1] Please see the appendix for an itemized list of the questions answered in this comment letter.

[2] For more information on the University of Texas System Dashboard, please visit: http://data.utsystem.edu/

[3] For more information on the California Community College Launchboard, please visit: http://doingwhatmatters.cccco.edu/launchboard.aspx

[4] The Data Quality Campaign tracks and synthesizes state privacy legislation annually. For information on 2015 and 2016 legislation, please visit: http://dataqualitycampaign.org/resource/student-data-privacy-legislation-happened-2015-next/; http://dataqualitycampaign.org/resource/2016-student-data-privacy-legislation/

[5] For more information on limited access to and sharing data for policy research, please read "Balancing Confidentiality and Access: Sharing employment and wage data for policy analysis and research": http://www.lmiontheweb.org/download/2015-05/Report--_Data_Confidentiality_and_Sharing_-_CREC-LMI_Institute_-_May_2015.pdf

[6] Over the past decade, voluntary data initiatives have collected data on student access, progress, and completion in an effort to guide federal, state, and institutional policy. In many cases, these collections supplement was is collected at the state and federal levels and seeks to include more students. For more information, please visit the PostsecData website: http://www.ihep.org/postsecdata/mapping-data-landscape/voluntary-data-initiatives

[7] To explore the 2 and 4 year college tools and the Economic Success Metrics, please visit: http://www.collegemeasures.org/

[8] For more information on utilizing federal employment data systems, please read "Employing WRIS2: Sharing age records across states to track program outcomes" by Rachel Zinn and John Dorrer: http://www.workforcedqc.org/sites/default/files/images/WRIS2%20Report%20May%202014.pdf

[9] For more information, please read "Fostering State-to-State Data Exchanges" by Brian Prescott and Patrick Lane: http://www.ihep.org/sites/default/files/uploads/postsecdata/docs/resources/fostering_state-to-state_data_exchanges.pdf

[10] https://www.regulations.gov/document?D=USBC-2016-0003-0001

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0148
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

November 14, 2016

Docket ID: USBC-2016-0003-0001
The Commission on Evidence-Based Policymaking (CEP)

To the Commission:

We, the undersigned organizations, respectfully submit the following comments to the Commission on Evidence-Based Policymaking. While we applaud the ambitious charge of the Commission to examine "strategies to increase the availability and use of government data, in order to build evidence related to government programs and policies, while protecting the privacy and confidentiality of the data," we strongly oppose any proposal that would lead to the creation of a central federal clearinghouse or linked data sets containing the personally identifiable information ("PII") of all students, commonly referred to as a federal student unit-record system or national database.

We cannot overstate the threat to student privacy that would be posed by the development of such a database, including breach, malicious attack, or use of student PII for purposes not initially intended. Ever since a federal student unit-record system was first proposed by the Bush administration in 2005, and banned by the Higher Education Act in 2008, the reasons against creating it have only become more persuasive in recent years.

Please see the attached link for a more detailed discussion of our concerns.

Yours,

Parent Coalition for Student Privacy
American Civil Liberties Union
Network for Public Education and NPE Action
Parents Across America
Badass Teachers Association
New York State Allies for Public Education

Attachments

letter-to-CEP-w-signers-final-11.14.16

November 14, 2016

Docket ID: USBC-2016-0003-0001
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We cannot overstate the threat to student privacy that would be posed by the development of such a database, including breach, malicious attack, or use of student PII for purposes not initially intended. Ever since a federal student unit-record system was first proposed by the Bush administration in 2005, and banned by the Higher Education Act in 2008, the reasons against creating it have only become more persuasive in recent years.

First, we are gravely concerned about the high probability of breaches and unauthorized access to the data. As a 2015 report by the U.S. Government Accountability Office ("GAO") revealed, reports of security incidents involving breaches of personal information held by federal agencies rose from 10,481 in 2009 to 27,624 in 2014 – an increase of 164 percent over five years -- for a total of 144,439 reported instances. [1] The report also noted that these events can *"adversely affect national security; [and] damage public health and safety*" and yet federal agencies have failed to implement approximately nearly half of the recommendations made to them to improve security of their systems over the last six years*.*

In addition to system breaches documented by the GAO, the Office of Personnel Management announced in June 2015 that the personnel records of about 22.1 million people had been maliciously hacked by foreign interests -- not only federal employees and contractors but also their families and friends, including highly sensitive information gathered for the purposes of security clearance. [2]

The US Department of Education has been found to have especially weak security standards in its collection and storage of student information, as reported by an audit released in November 2015 by the department's Inspector General. This puts at risk the huge amount of data that the agency already holds, including student loan information involving information on more than 100 million individuals and

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[1] http://www.gao.gov/assets/680/673678.pdf
[2] https://www.washingtonpost.com/news/federal-eye/wp/2015/07/09/hack-of-security-clearance-system-affected-21-5-million-people-federal-authorities-say/

at least 39 million unique Social Security numbers.[3] A reported by the audit, staff in the IG office hacked into the Department's main IT system and gained unfettered access to personal data without anyone noticing. Overall, the audit found significant weaknesses in four out of the five security categories.[4] In May 2016, the government scorecard created to assess how well federal agencies were implementing data security measures awarded the Education Department an overall grade of D.[5]

Second, K-12 student data currently collected by state departments of education in statewide longitudinal data systems (SLDS) that would potentially be shared with the federal database generally extend well beyond traditional administrative data to include upwards of 700 specific personal data elements, including students' immigrant status, disabilities, disciplinary incidents, and homelessness status.[6]

Data collected ostensibly for the sole purpose of research but without the individual's consent or knowledge would likely be merged with other federal agency data sets, to follow students into the workplace and beyond, and could include data from their military service, tax returns, criminal and health records. If this granular level of sensitive information were available in a universal U.S. student record database, it could quickly become a go-to repository for purposes that should never be allowed.

A real-life example of the potential misuse of a system of this nature has just been reported in England. There, a similar student data repository called the National Pupil Database ("NPD") was intended to be maintained "solely for internal departmental use for the analytical, statistical and research purposes." But as Freedom of Information requests[7] recently revealed, the names and home addresses of thousands of students[8] in the NPD have been requested by police and the Home Office for various purposes over the last 15 months, including to curb "abuse of immigration control."[9] A group of parents, teachers, and human rights campaigners has launched a national boycott to urge parents and schools to withhold their children's country of birth and nationality, data which is being collected at national level for the first time.[10]

Finally, we are very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national unit-record system could be used to expand tracking of students. While data holds promise to solve complex problems and may be used to improve our nation's policies, we have a responsibility to our nation's citizens to protect the privacy of their most personal information, especially that of vulnerable children.

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[3] https://www2.ed.gov/about/offices/list/oig/auditreports/fy2015/a11o0001.pdf
[4] http://federalnewsradio.com/cybersecurity/2015/11/government-testers-easily-bypassed-education-defenses-recent-cyber-audit/
[5] http://www.nextgov.com/cio-briefing/2016/05/fitara-scorecard-fewer-agencies-get-failing-scores/128410/
[6] See NYS for example at http://www.p12.nysed.gov/irs/sirs/documentation/NYSEDstudentData.xlsx
[7] https://www.whatdotheyknow.com/request/sharing_national_pupil_database?nocache=incoming-878444#incoming-878444
[8] http://www.parliament.uk/business/publications/written-questions-answers-statements/written-question/Commons/2016-10-13/48635/
[9] http://www.theregister.co.uk/2016/10/12/national_pupil_database_has_been_used_to_control_immigration/?mt=1476378123415
[10] https://www.liberty-human-rights.org.uk/news/press-releases-and-statements/government-facing-lords-opposition-over-widely-condemned-"foreign

Any recommendation by the Commission to establish a federal data clearinghouse of student PII could effectively create life-long dossiers on nearly every individual in the nation. Instead, we strongly believe that the federal government should use aggregate, de-identified student information already maintained by states or districts for research or policy decisions.

We strongly urge that members of the Commission to consider the threats to privacy that overturning the ban on a federal student unit-record clearinghouse would create. Once privacy is lost it is nearly impossible to restore, and we hold a moral and ethical obligation to our children – and our citizens -- to minimize this risk in any way possible.

Yours,

Parent Coalition for Student Privacy
American Civil Liberties Union
Network for Public Education and NPE Action
Parents Across America
Badass Teachers Association
New York State Allies for Public Education

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0149
Comment on FR Doc # 2016-22002

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General Comment

See attached file(s)

Attachments

EPIC-CEP-RFC

COMMENTS OF THE ELECTRONIC PRIVACY INFORMATION CENTER

to the

COMMISSION ON EVIDENCE-BASED POLICYMAKING

Request for Public Comment

November 14, 2016

By notice published on September 14, 2016, the Commission on Evidence-Based Policymaking ("CEP") requests public comments on "how to increase the availability and use of government data in support of evidence-building activities related to government programs and policies, while protecting the privacy and confidentiality of such data."[1] Pursuant to this notice, the Electronic Privacy Information Center ("EPIC") submits these comments to (1) make clear that data can be used both for informed policy-making and for profiling, segmentation, and discrimination; (2) urge the Commission to promote privacy-enhancing techniques ("PETs") that minimize or eliminate Personally Identifiable Information; and (3) propose data use schemes that leave the data with the custodial agencies instead of a central repository.

EPIC is a public interest research center in Washington, D.C. EPIC was established in 1994 to focus public attention on emerging privacy and related human rights issues and to

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[1] *Request for Comments for the Commission on Evidence-Based Policymaking*, 81 Fed. Reg. 63,166 (Sep. 14, 2016) [hereinafter "Request for Comments].

protect privacy, the First Amendment, and constitutional values. EPIC has a particular interest in safeguarding personal privacy and preventing harmful data practices. For example, EPIC routinely submits comments to federal agencies, urging them to uphold the Privacy Act and protect individual privacy in mass government databases.[2] EPIC is also a leading consumer advocate before the Federal Trade Commission ("FTC"). EPIC has a particular interest in protecting consumer privacy, and has played a leading role in developing the authority of the FTC to address emerging privacy issues and to safeguard the privacy rights of consumers.[3] In 2014, EPIC submitted extensive comments to the White House Office of Science and Technology Policy, warning of the enormous risk to Americans that current "big data" practices present, and recommending the adoption of privacy-enhancing techniques.[4] EPIC also maintains a webpage on practical privacy tools.[5]

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[2] *See, e.g.*, EPIC et al., *Comments on the Terrorist Screening Database System of Records, Notice of Privacy Act System of Records and Notice of Proposed rulemaking, Docket Nos. DHS 2011-0060 and DHS 2011-0061* (Aug. 5, 2011), *available at* http://epic.org/privacy/airtravel/Comments_on_DHS-2011-0060_and_0061FINAL.pdf; EPIC, *Comments on Secure Flight*, *Docket Nos. TSA-2007-28972, 2007-28572* (Sept. 24, 2007), *available at* http://epic.org/privacy/airtravel/sf_092407.pdf; EPIC, *Secure Flights Should Remain Grounded Until Security and Privacy Problems are Resolved, Spotlight on Surveillance Series* (August 2007), *available at* http://epic.org/privacy/surveillance/spotlight/0807/default.html; *Passenger Profiling*, EPIC, http://epic.org/privacy/airtravel/profiling.html (last visited Apr. 3, 2014); *Secure Flight*, EPIC, http://epic.org/privacy/airtravel/secureflight.html (last visited Apr. 3, 2014); *Air Travel Privacy*, EPIC, http://epic.org/privacy/airtravel/ (last visited Apr. 3, 2014).

[3] *See, e.g.*, Letter from EPIC Executive Director Marc Rotenberg to FTC Commissioner Christine Varney, EPIC (Dec. 14, 1995) (urging the FTC to investigate the misuse of personal information by the direct marketing industry), http://epic.org/privacy/internet/ftc/ftc_letter.html; DoubleClick, Inc., *FTC* File No. 071-0170 (2000) (Complaint and Request for Injunction, Request for Investigation and for Other Relief), http://epic.org/privacy/internet/ftc/DCLK_complaint.pdf; Microsoft Corporation, FTC File No. 012 3240 (2002) (Complaint and Request for Injunction, Request for Investigation and for Other Relief), http://epic.org/privacy/consumer/MS_complaint.pdf; Choicepoint, Inc., FTC File No. 052-3069 (2004) (Request for Investigation and for Other Relief) , http://epic.org/privacy/choicepoint/fcraltr12.16.04.html.

[4] [cite to comments]

[5] EPIC Online Guide to Practical Privacy Tools, http://epic.org/privacy/tools.html.

1. **Data is the basis of research, innovation, economic growth, and informed policy decisions, but data is also the basis for profiling, tracking, segmentation, and discrimination**

Although increased use of administrative and survey data has the potential to improve informed policymaking, there are real risks in combining this data and making it more easily available. Data that is improperly protected can be used by the government and in the private sector for profiling, tracking, and discrimination. The potential use of personal information to make automated decisions and segregate individuals based on secret, imprecise and oftentimes impermissible factors presents clear risks to fairness and due process.

   A. *Government collection and abuse of data*

Today, Americans are in more government databases than ever. Government agencies routinely amass personally-identifiable information ("PII") but absolve themselves of any legal duties or responsibilities to safeguard individual privacy. For example, the Federal Bureau of Investigation's Data Warehouse System hoards individual information, including:

> biographical information (such as name, alias, race, sex, date of birth, place of birth, social security number, passport number, driver's license, or other unique identifier, addresses, telephone numbers, physical descriptions, and photographs); biometric information (such as fingerprints); financial information (such as bank account number); location; associates and affiliations; employment and business information; visa and immigration information; travel; and criminal and investigative history, and other data that may assist the FBI in fulfilling its national security and law enforcement responsibilities.[6]

Incredibly, the agency has exempted itself from Privacy Act requirements that the FBI maintain only "accurate, relevant, timely and complete" personal records.[7] The FBI has also exempted itself from Privacy Act requirements permitting individuals to access and amend

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[6] Privacy Act of 1974; System of Records, 77 Fed. Reg. 40,630, 40,631 (July 10, 2012), *available at* http://www.gpo.gov/fdsys/pkg/FR-2012-07-10/pdf/2012-16823.pdf.
[7] 28 C.F.R. §16.96 (v).

inaccurate records.[8] Other agencies, like the Department of Homeland Security and the National Security Agency, have exempted databases containing detailed, sensitive personal information from well-established Privacy Act safeguards.[9] EPIC has routinely objected to agencies gathering personally identifiable information while eschewing privacy protections, noting:

> It is inconceivable that the drafters of the Privacy Act would have permitted a federal agency to propose a profiling system on U.S. citizens and be granted broad exemptions from Privacy Act obligations. Consistent and broad application of Privacy Act obligations are the best means of ensuring accuracy and reliability of the data used in a system that profoundly affects millions of individuals as they travel throughout the United States on a daily basis.[10]

The government also uses predictive analytics to the detriment of millions of individuals. For example, the Department of Homeland Security's TSA PreCheck program collects vast amounts of PII including biometric information to perform a "security threat assessment" of "law enforcement, immigration, and intelligence databases, including a fingerprint-based criminal history check conducted through the Federal Bureau of Investigation."[11] The TSA uses automated data processing to determine which individuals will be scrutinized upon traveling throughout the United States.[12] The decisions are completely opaque and lack an effective recourse option. Remarkably, the TSA itself has lost sensitive personal information that it has

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[8] *Id.*

[9] *See, e.g.*, EPIC et al., *Comments on the Department of Defense Privacy Program* (Oct. 21, 2013), *available at* https://epic.org/privacy/nsa/Coal-DoD-Priv-Program-Cmts.pdf; *see also supra* note 3, *Comments Urging the Department of Homeland Security To (A) Suspend the "Automated Targeting System"*.

[10] EPIC, *Comments on TSA PreCheck Application Program System of Records Notice and Notice of Proposed Rulemaking and TSA Secure Flight System of Records Notice*, 5 (Oct. 10, 2013), *available at* http://epic.org/apa/comments/TSA-PreCheck-Comments.pdf.

[11] Privacy Act of 1974: Implementation of Exemptions; Department of Homeland Security Transportation Security Administration, DHS/TSA-021, TSA PreCheck Application Program System of Records, 78 Fed. Reg. at 55,657 (proposed Sept. 11, 2013), *available at* http://www.gpo.gov/fdsys/pkg/FR-2013-09-11/pdf/2013-22069.pdf.

[12] Privacy Act of 1974; Department of Homeland Security Transportation Security Administration-- DHS/TSA—019 Secure Flight Records System of Records, 78 Fed. Reg. 55,270, 55,271 (proposed Sept. 10, 2013), *available at* http://www.gpo.gov/fdsys/pkg/FR-2013-09-10/pdf/2013-21980.pdf.

collected from its employees.[13] The TSA lost a portable drive containing the bank account numbers, Social Security numbers, names and birth dates of more than 100,000 people who worked at the TSA over a three-year period.

It is vitally important to ensure that any data clearinghouse minimizes collection, secures the information that is collected, and prevents abuses of collected data through the use of predictive analytics.

B.   The 1965 National Data Center Proposal and the Privacy Act of 1974

This Commission's current efforts echo in many ways the goals of the proposed National Data Center in the 1960s. As Rebecca Kraus wrote:

> Computer technology had improved the efficiency and affordability of research with large data sets, and the expansion of government social programs called for more data and research to inform public policy. As a result, in 1965 social scientists recommended that the federal government develop a national data center that would store and make available to researchers the data collected by various statistical agencies.[14]

A 1965 report prepared by the SSRC Committee on the Preservation and Use of Economic Data noted that federal government statistics were highly decentralized and held by agencies that collected the underlying data as a "by-product of the regulatory process."[15] It recommended the creation of a "Federal Data Center" with the authority to obtain data "produced by all federal agencies."[16] The report also recommended the development of an

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[13] Thomas Frank, *TSA Seeks Hard Drive, Personal Data on 100,000*, USA TODAY, May 5, 2007, available at http://usatoday30.usatoday.com/news/washington/2007-05-04-harddrive-tsa_N.htm?csp=1.
[14] Rebecca S. Kraus, *Statistical Déjà Vu: The National Data Center Proposal of 1965 and Its Descendants*, 5 J. Privacy & Confidentiality 1, 1 (2013).
[15] RICHARD RUGGLES, RICHARD MILLER, EDWIN KUH, STANLEY LEBERGOTT, GUY ORCUTT & JOSEPH PECHMAN, REPORT OF THE SSRC COMMITTEE ON THE PRESERVATION AND USE OF ECONOMIC DATA (1965).
[16] *Id.* at 1.

organization that could provide a "clearing house and coordination of requests for data made by individual scholars from Federal agencies."[17]

The proposal was met with public outrage.[18] Congress held hearings at which proponents of the national data center appeared to downplay privacy concerns.[19] In 1973, a federal advisory committee released its report on Records, Computers, and the Rights of Citizens.[20] As EPIC President Marc Rotenberg explained in 2000:

> The purpose was benign. It was believed that such a databank would be very useful to social scientists and others, but the implications were severe. People understood that the collection of these permanent profiles, made possible by computerized automation, would pose a threat to the privacy and liberty of American citizens. The proposal for the National Data Center was withdrawn and over time a comprehensive legal framework—the Privacy Act of 1974—was established to safeguards the rights of American citizens. The Privacy Act imposed on all federal agencies essential privacy rights and responsibilities— "Fair Information Practices"—that would limit would federal agencies could do with personal information and gave every American the right to see the information about them that was collected.[21]

The Privacy Act incorporates the Code of Fair Information Practices that the Health, Education, and Welfare Advisory Committee on Automated Data Systems issued in 1973.[22] The Code of Fair Information Practices ("FIPs") sets out five obligations for all organizations that collect personal data:

1. There must be no personal data record-keeping systems whose very existence is secret.

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[17] *Id.* at 2.

[18] *Id.* at 13–17; VANCE PACKARD, THE NAKED SOCIETY (Ig Publishing 2014) (1964).

[19] *Invasions of Privacy: Hearings before the Subcomm. on Administrative Practice and Procedure of the Senate Comm. on the Judiciary*, 89th Cong. (1966), https://www.epic.org/privacy/hew1973report/; *see also* Kraus, supra note 14, at 11.

[20] SECRETARY'S ADVISORY COMM. ON AUTOMATED PERS. DATA SYS, RECORDS, COMPUTERS AND THE RIGHTS OF CITIZENS (1973), https://www.epic.org/privacy/hew1973report/.

[21] *Internet Privacy and Profiling: Hearing before the S. Comm. on Commerce, Sci. & Transp.*, 106th Cong. (2000) (statement of Marc Rotenberg, Director, Electronic Privacy Information Center).

[22] *The Code of Fair Information Practices*, EPIC, http://epic.org/privacy/consumer/code_fair_info.html.

2. There must be a way for a person to find out what information about the person is in a record and how it is used.

3. There must be a way for a person to prevent information about the person that was obtained for one purpose from being used or made available for other purposes without the person's consent.

4. There must be a way for a person to correct or amend a record of identifiable information about the person.

5. Any organization creating, maintaining, using, or disseminating records of identifiable personal data must assure the reliability of the data for their intended use and must take precautions to prevent misuses of the data.[23]

In passing the Privacy Act of 1974, Congress found that: (1) individual privacy is "directly affected by the collection, maintenance, use, and dissemination of personal information by Federal agencies"; (2) big data in the government sector "greatly magnified the harm to individual privacy"; (3) misuse of government data can threaten "the opportunities for an individual to secure employment, insurance, and credit, and his right to due process"; (4) privacy is a constitutionally-protected "personal and fundamental right"; and (5) "in order to protect the privacy of individuals identified in information systems maintained by Federal agencies, it is necessary and proper for the Congress to regulate the collection, maintenance, use, and dissemination of information by such agencies."[24]

The United States has been slow to update its privacy laws and companies have been reluctant to implement privacy enhancing technologies—neither an appropriate legal framework

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[23] U.S. Dep't. of Health, Education and Welfare, Secretary's Advisory Committee on Automated Personal Data Systems, Records, computers, and the Rights of Citizens viii (1973).
[24] Public Law 93-579, 93rd Congress, S.3418, Privacy Act, Section 2 (a) (Dec. 31, 1974).

or technical framework have been implemented to consistently safeguard individual privacy through the FIPs.

The FIPs appear in various privacy laws and frameworks, such as the Organization for Economic Cooperation and Development ("OECD") Privacy Guidelines,[25] the Privacy Act of 1974,[26] and the European Commission's recent Data Protection Regulation.[27] In the United States, the Consumer Privacy Bill of Rights ("CPBR") is a flexible and adaptable instantiation of the FIPs.

The CPBR provides a comprehensive framework that lists seven substantive privacy protections for consumers: Individual Control, Transparency, Respect for Context, Security, Access and Accuracy, Focused Collection, Accountability.[28] This Commission's efforts to make administrative and survey data available for use in evidence-based policymaking while preserving privacy protections should focus on technology that facilitates the implementation of the privacy protections listed in the CPBR.

The reaction to the proposed National Data Center contains several lessons for this Commission. First, privacy must be an integral component of any effort to streamline access to administrative and survey data. Second, the importance of privacy to the project must be clearly communicated to the public. Third, because the idea of a centralized repository is particularly worrisome, any clearinghouse should leave data with the custodial agencies. And finally, a

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[25] OECD Guidelines on the Protection of Privacy and Transborder Flows of Personal Data, *available at* http://www.oecd.org/document/18/0,3343,en_2649_34255_1815186_1_1_1_1,00.html.

[26] Privacy Act of 1974, 5 USC § 552a.

[27] Proposal for a Regulation of the European Parliament and the Council on the protection of individuals with regard to the processing of personal data and the free movement of such data (General Data Protection Regulation), E.C. COM (2012) final, (Jan. 25, 2012), available at http://ex.europa/eu/justice/data-protection/document/review2012/com_2012_11_en.pdf

[28] *Id.*

clearinghouse for government data must operate within the protections provided by the Privacy Act.

**2.	The Commission should encourage the development and use of privacy-enhancing techniques to maximize the benefits and minimize the risks of greater data access**

The Commission should focus on Privacy Enhancing Techniques[29] ("PETs") that "minimize or eliminate the collection of personally identifiable information."[30] The Commission can support and further the work of computer scientists that have created various privacy enhancing mechanisms. Techniques that help obtain the advantages of big data while minimizing privacy risks should be encouraged, but these techniques must be robust, scalable, provable, and practical. We discuss some relevant privacy-enhancing techniques below.

*A.	Data Minimization*

The Commission should incorporate data minimization requirements based on those described by the CPBR. The principles that call for federal agencies to "collect only as much personal data as they need to accomplish purposes specified" and "securely dispose of or de-identify personal data once they no longer need it, unless they are under a legal obligation to do otherwise"[31] applies equally to any use or disclosure of agency data. Data minimization protects the confidentiality of consumer data and also serves important data security purposes. Limiting the amount of personal data that agencies collect, retain, and make available also limits the harm that results from possible data breaches.

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[29] We use the word "techniques" instead of the more common "technologies" here to reflect the fact that privacy-enhancing methods do not necessarily have to be technological.

[30] Testimony and Statement for the Record of Marc Rotenberg, Executive Director, EPIC, Hearing on Privacy in the Commercial World, Before the Committee on Commerce, Trade, and Consumer Protection (Mar. 1, 2001), http://epic.org/privacy/testimony_0301.html; *See also* Herbert Burkert, *Privacy Enhancing Technologies: Typology, Critique Vision* in PHIL E AGRE AND MARC ROTENBERG, TECHNOLOGY AND PRIVACY: THE NEW LANDSCAPE 125-42 (MIT Press 1998).

[31] White House, CPBR.

Two examples show how evidence-based policymaking can be done without using any personally identifiable information: the U.S. Courts' federal wiretap reports[32] and the National Oceanic and Atmospheric Administration's ("NOAA's") weather data.

The wiretap reports are annual reports to Congress "concerning intercepted wire, oral, or electronic communications" pursuant to federal and state wiretap laws. Federal law requires the Administrative Office of the United States Courts to report the number of federal and state wiretap applications, authorizations, and denials.[33] The reporting requirement provides a common data set that allows researchers, advocates, and government officials to describe the scope of lawful electronic surveillance in the United States. Because the reports are mandated by law, not voluntary or dependent on private sector data sources such as "transparency reports," the reports are regularly reported and stable over time. The methodology for the reports is transparent, the data is provable, and the reports pose no privacy risk because PII is neither collected nor published.

The NOAA uses weather forecasting data, climate data, and satellite imagery extensively. Its reports as used by fishing, shipping, agriculture, and many associated industries. Its data also supports mission-critical functions, emergency services, and local and state governments. None of this data is PII.

B.   *Anonymization or "De-Identification" of Data*

The Commission should ensure that a clearinghouse uses anonymization techniques that adequately de-identify data so that data cannot be combined with other information for re-identification. Because not all de-identification techniques adequately anonymize data, it is

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[32] U.S. COURTS, WIRETAP REPORTS, http://www.uscourts.gov/statistics-reports/analysis-reports/wiretap-reports (last visited Nov. 14, 2016).

[33] Omnibus Crime Control and Safe Streets Act of 1968, Pub. L. No. 90-351, § 802, 82 Stat. 197 (codified at 18 U.S.C. § 2519).

important that the process employed is robust, scalable, transparent, and shown to provably prevent the identification of consumer information.[34]

Many companies claim to anonymize or de-identify personal information by aggregating it or assigning pseudonyms to it. Behavioral advertising companies routinely claim that the use of pseudonymous identifiers renders personal information anonymous.[35] Data brokers also rely on the aggregate nature of their marketing data as a defense against criticism of their privacy practices. However, these claims of anonymization are often deceptive. Widely-publicized anonymization failures have shown that even relatively sophisticated techniques have still permitted researchers to identify particular individuals in large data sets.[36]

EPIC favors techniques to de-identify user data,[37] and many scholars are performing valuable research on various de-identification techniques,[38] but greater clarification and standardization is needed. For example, Distinguished Scientist at Microsoft Research Cynthia Dwork has espoused "differential privacy" as a "privacy-preserving analysis."[39] Differential privacy "ensures that the removal or addition of a single database item does not (substantially)

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[34] *See generally* EPIC, *Re-identification*, http://epic.org/privacy/reidentification/.
[35] *DMA Interest-Based Advertising (IBA) Compliance Alert & Guidelines for Interest-Based Advertising*, Direct Marketing Assoc, http://www.dmaresponsibility.org/privacy/oba.shtml ("Relevant Ads Using Anonymous Data. IBA relies on anonymous, aggregated data to deliver an ad to a computer based on the computer browser's activity, not the activities of a specific individual. Companies use cookies to make this happen.").
[36] *See, e.g*., Latanya Sweeney, *Simple Demographics Often Identify People Uniquely* http://dataprivacylab.org/projects/identifiability/paper1.pdf; Paul Ohm, *Broken Promises of Privacy: Responding to the Surprising Failure of Anonymization*, 57 UCLA L. REV. 1701, 1704 (2010) ("Data can be either useful or perfectly anonymous but never both.").
[37] *See generally* Re-identification, ELEC. PRIVACY INFO. CTR., https://epic.org/privacy/reidentification/ (last visited Nov. 19, 2012).
[38] *See, e.g.,* Cynthia Dwork, *Differential Privacy: A Survey of Results*, in THEORY AND APPLICATIONS OF MODELS OF COMPUTATION 1, 3 (Manindra Agrawal et al. eds., 2008); *see also* Latanya Sweeney, *k-anonymity: A Model for Protecting Privacy*, INT'L J. ON UNCERTAINTY, FUZZINESS AND KNOWLEDGE-BASED SYSTEMS, 10(5), 2002; 557- 570.
[39] Cynthia Dwork, *Differential Privacy: A Survey of Results*, 1, 2008, http://www.cs.ucdavis.edu/~franklin/ecs289/2010/dwork_2008.pdf.

affect the outcome of any analysis." [40] Although not an "absolute guarantee of privacy," differential privacy "ensures that only a limited amount of additional risk is incurred by participating in the socially beneficial databases."[41]

Jeff Jonas, Chief Scientist for the IBM Analytics Groups, describes the need to "bake in" privacy protection by, for example, "the ability to anonymize the data at the edge, where it lives in the host system, before you bring it together to share it and combine it with other data."[42] The Commission should focus on improving anonymization techniques to not only increase its effectiveness but also to expand the use cases for anonymization.

3.   **A clearinghouse should leave the data with the custodial agencies instead of storing data in a central repository**

The Commission asks in question 11:

How might integration of administrative and survey data in a clearinghouse affect the risk of unintentional or unauthorized access or release of personally-identifiable information, confidential business information, or other identifiable records? How can identifiable information be best protected to ensure the privacy and confidentiality of individual or business data in a clearinghouse?

EPIC addresses this point to stress that a data clearinghouse should not be a central repository of data. A central database would increase the risk of data breach and insider misuse. It would also be more likely to lead to the kinds of perceptions that led to the demise of the 1965 National Data Center.

The 2015 data breaches at the Office of Personnel Management (OPM), which compromised the personal data of 21.5 million people, including 1.8 million people who did not

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[40] *Id*. at 2.
[41] *Id*. at 2-3.
[42] IBM's Jeff Jonas on Baking Data Privacy into Predictive Analytics, *Data Informed,* Nov. 20, 2013, http://data-informed.com/ibms-jeff-jonas-baking-data-privacy-predictive-analytics/#sthash.hBM0lg1N.dpuf

apply for background checks,[43] illustrate the dangers of holding administrative and survey data in a single location. The OPM breach exposed sensitive background investigation data spanning three decades.[44] OPM warns on its website:

> If you underwent a Federal background investigation in 2000 or afterwards (which occurs through the submission of forms SF-86, SF-85, or SF-85P for either a new investigation or a reinvestigation), it is highly likely that you are impacted by the incident involving background investigations. If you underwent a background investigation prior to 2000, you still may be impacted, but it is less likely.[45]

The fingerprints of 5.6 million people were also stolen in the data breach.[46]

Though it may be difficult to imagine, the OPM breach could have been worse if the OPM had held the disparate types of information contemplated in a clearinghouse of administrative and survey data. The more information a database holds, and the more information that resides in the same place, the greater the amount of information that will be disclosed in a breach.

Unauthorized insider access is also a greater threat when data sets are combined into a central location. Criminal dockets contain numerous examples of government employees prying for entertainment or profit. Police officers and deputy sheriffs,[47] customs officers,[48] corrections

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[43] Dan Goodin, *Call it a "Data Rupture": Hack Hitting OPM Affects 21.5 Million*, ARS TECHNICA (July 9, 2015), http://arstechnica.com/security/2015/07/call-it-a-data-rupture-hack-hitting-opm-affects-21-5-million/.

[44] Andrea Shalal & Matt Spetalnick, *Data Hacked from U.S. Government Dates Back to 1985: U.S. Official*, REUTERS (June 5, 2015), http://www.reuters.com/article/us-cybersecurity-usa-idUSKBN0OL1V320150606.

[45] Office of Personnel Management, *Cybersecurity Resource Center*, https://www.opm.gov/cybersecurity/cybersecurity-incidents/.

[46] Andrea Peterson, *OPM Says 5.6 Million Fingerprints Stolen in Cyberattack, Five Times as Many as Previously Thought*, WASH. POST (Sep. 23 2015), https://www.washingtonpost.com/news/the-switch/wp/2015/09/23/opm-now-says-more-than-five-million-fingerprints-compromised-in-breaches/.

[47] *See, e.g.*, United States v. Black, No. 1:14-cr-00012 (D. Colo. 2014) (running license plates against motor vehicle databases to help a drug-dealing relative determine whether certain vehicles were unmarked police cars); United States v. Cave, No. 8:12-cr-00417 (D. Neb. 2013) (running state Criminal Justice Information Systems (CJIS) searches on behalf of car dealerships seeking to repossess vehicles); United States v. Nowlin, No. 1:12-cr-00513 (D. Md. 2013) (police officer accessing a motor vehicle

officers,[49] Veterans Administration employees,[50] Social Security Administration employees,[51] and many IRS employees[52] have been convicted of access to data for unauthorized purposes. If a clearinghouse of administrative and survey data is created, it is a certainty that someone will look at it despite criminal penalties for doing so. If the data is spread out among the custodial agencies, inaccessible to a single login, the risk of disclosure from insider prying will be minimized.

Finally, the specter of a single database collecting all the government's data about a person is exactly the kind of proposal that led to the demise of the National Data Center and the enactment of the Privacy Act of 1974. Even if data is de-identified—and de-identification would be much more difficult when all data is collected together instead of subsets—many will fear, justifiably so, the uses that such a database might be put to.

4.   Conclusion

The use of administrative and survey data has great potential for informed, fact-based policymaking. But it also has the potential to harm privacy and liberty interests. EPIC asks the Commission to encourage the development and use of PETs, including data minimization and robust de-identification of data, in any plan for a data clearinghouse. EPIC also urges the Commission to adopt data use schemes that leave the data with the custodial agencies instead of a central repository.

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database on behalf of a drug dealer); United States v. Green, No. 4:10-cr-00059 (S.D. Tex. 2010) (sheriff's deputy selling information from the National Crime Information Center (NCIC) database).
[48] *See, e.g.*, United States v. Ben-Shabat, No. 4:09-cr-02180 (D. Ariz. 2010) (customs officer accessing databases to gather information on a company with whom the officer was involved in a legal dispute); United States v. Yanez-Camacho, No. 3:09-cr-02755 (S.D. Cal. 2009).
[49] *See, e.g.*, United States v. Barone, No. 3:08-cr-00174 (D. Conn. 2009).
[50] *See, e.g.*, United States v. Dubree, No. 1:09-cr-00067 (D. Md. 2009) (Veterans Administration employee accessing a co-worker's medical records).
[51] *See, e.g.*, United States v. Wilson, No. 1:09-cr-00662 (D. Md. 2010) (accessing Social Security Administration records for the information necessary to take out a credit card in someone else's name).
[52] *See, e.g.*, United States v. Harris, No. 5:14-cr-00120 (N.D. Tex. 2015); United States v. Krien, No. 2:08-cr-20148 (Kan. 2009); United States v. Supple, No. 3:08-cr-00029 (D. Conn. 2008); United States v. Orr, No. 2:07-cr-00016 (E.D. Ky. 2007); United States v. Jones, No. 1:06-cr-00169 (W.D. Mo. 2006).

Respectfully Submitted,

/s/ Marc Rotenberg
Marc Rotenberg
EPIC President and Executive Director

/s/ James Graves
James Graves
EPIC Law and Technology Fellow

PUBLIC SUBMISSION

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Request for Comments for the Commission on Evidence-Based Policymaking

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Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

I am resolutely opposed to the work of CEP. This is Big Brother and Brave New World on rocket fuel or speed or steroids - - take your pick.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0151
Comment on FR Doc # 2016-22002

Submitter Information

Name: John Byrd

General Comment

See attached file from MAPPS, the national association of mapping and geospatial firms.

Docket ID USBC-2016-0003
"Commission on Evidence-Based Policymaking Comments"

Attachments

MAPPS Comments to Census Bureau for the Commission on Evidence-Based Policymaking (11-14-2016)
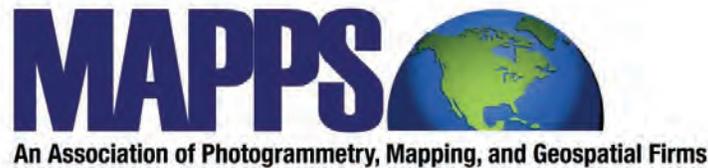
MAPPS Comments to the Bureau of the Census for the Commission on Evidence-Based Policymaking

Docket ID USBC-2016-0003
"Commission on Evidence-Based Policymaking Comments"

Formed in 1982, MAPPS (www.mapps.org) is the only national association exclusively comprised of private sector firms in the remote sensing, spatial data and geographic information systems field in the United States. The MAPPS membership spans the entire spectrum of the geospatial community, including Member Firms engaged in satellite and airborne remote sensing, surveying, photogrammetry, aerial photography, LIDAR, hydrography, bathymetry, charting, aerial and satellite image processing, GPS, and GIS data collection and conversion services. MAPPS also includes Associate Member Firms, which are companies that provide hardware, software, products and services to the geospatial profession in the United States and other firms from around the world. Independent Consultant Members are sole proprietors engaged in consulting in or to the geospatial profession, or provides a consulting service of interest to the geospatial profession. MAPPS provides its member firms opportunities for networking and developing business-to-business relationships, information sharing, education, public policy advocacy, market growth, and professional development and image enhancement.

MAPPS Recommendation:
The Commission on Evidence-Based Policymaking should establish a priority on Federal government collection and application of geospatial data, particularly the National Spatial Data Infrastructure (NSDI), to address national policies and priorities.

Background

The United States is a world economic power in spite of its surveying and mapping, not because of it. According to the Congressional Research Service (CRS) and the Federal Geographic Data Committee (FGDC), there are estimates that as much as 90% of government information has a geospatial component. Executive Order 12906, issued in 1994, called for the development of the NSDI, but it has languished. Accurate surveying and mapping, via the NSDI, can be a matter of life or death.

An independent review team tasked by the Coalition for Geospatial Organizations (COGO) gave the NSDI a report card grade of "C" in 2014. As a result, the United States would rank behind some 15 other countries. That's the conclusion of the former Wyoming Governor Jim Geringer who pointed to the United Arab Emirates as an example of a nation that has an excellent spatial data infrastructure and uses it in almost every government decision and program.

According to Geringer, NSDI is "not complete and not well governed" and called for a "move into a coordinated and integrated data set."

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The COGO report card encourages government agencies to improve the NSDI to better support efficient government operations at all levels. "The goal of the report card evaluation is to bring attention to the need for current and accurate geospatial data for the nation," he said. As governor, geospatial framework data was "my reference" when making policy or doing analysis, Geringer explained. "You don't even know you're making an erroneous assumption," when using dated, incomplete or inaccurate spatial data. That "impacts the quality of a decision." He went on to say spatial data affects "decision-making, policy and economics."

Why is our nation's surveying and mapping infrastructure as important as its roads, bridges, airports, waterworks and other physical infrastructure? Let's look at the ways:

- The Affordable Care Act, commonly known as "Obamacare," includes 814 provisions requiring location/geographic/place-based data for implementation. The lack of data, or a geospatial management office in the Department of Health and Human Services, could be a factor in the failure of websites, exchanges and other methods of delivering quality, affordable medical attention to those in need.

- The federal government wastes $2 billion a year on some 77,000 unneeded buildings, and the Government Accountability Office (GAO) cites the fact Uncle Sam lacks a current, accurate inventory of the land and buildings it owns, finding existing data is "unreliable and of limited usefulness" and "not current or reliable."

- The lack of uniform national parcel data in United States means no government agency could properly track real estate trends or access an "early warning system" that could have prevented, or at least minimized, the trillion-dollar mortgage foreclosure crisis.

- Based on data from NOAA's Digital Coast project, rising sea levels threaten coastal watershed counties that are home to 163.8 million Americans — approximately 52 percent of the nation's population — with the number expected to increase by more than 15 million by 2020. However, accurate data and integrated information to enable coastal communities to address many climate, environmental and emergency management issues does not exist. There is no accurate shoreline surveying and mapping data to measure, monitor, verify or validated the alleged effects of climate change. This seriously affects the coastal zone, which is the home of over half of the nation's economic productivity.

- When Congress sought to reauthorize MAP-21, the Federal highway law enacted in 2012, as well as the recently enacted FAST Act, essential were and continue to be surveying, mapping and other location-based services to plan, design, inventory, assess, operate and maintain highways and transit systems. Vehicle to vehicle (V2V) or "connected vehicle" technology to enable vehicles to communicate potential risks to drivers and avoid rear-end, lane change and intersection crashes requires accurate spatial data. The transportation layer received the COGO report card's lowest grade of D. MAP-21 Reauthorization, via the FAST act, provided an opportunity for Congress to not only leverage investments and introduce new geospatial technology, data, products and services, but also to reduce costs, and enhance safety and efficiency in our nation's transportation systems.

- Pipelines in the United States could encircle Earth 25 times. It is estimated an underground utility line is hit somewhere in the nation every 60 seconds. There were approximately 335,000

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underground excavation damages in 2013. Improved underground infrastructure location data would enhance public safety, environmental protection and the economy. President Obama in June signed into law the "Protecting our Infrastructure of Pipelines and Enhancing Safety" or "PIPES Act" of 2016 as Public Law 114-183. The law extends the Pipeline and Hazardous Materials Safety Administration (PHMSA), makes changes to PHMSA safety policies and gives the Department of Transportation more power in the event of pipeline emergencies. The law also includes an issue promoted by MAPPS to ensure coordination and collaboration on pipeline mapping, research, development, and technology between PHMSA, industry, and public stakeholders, including provisions strengthening geolocation data for pipelines and other underground utility infrastructure through enhanced underground utility location data requirements. The Department of Energy's (DOE) Quadrennial Energy Review also highlighted pipeline safety as an issue for the nation's energy infrastructure. Trends in pipeline accidents suggest there continues to be opportunity for safety improvement. The DOE and PHMSA have since announced an interagency task force to "initiate regulatory actions to help ensure the safety of natural gas storage facilities." "Improving data collection and reporting, including geospatial data" was one area highlighted in the January 2015 study on integrity management by the National Transportation and Safety Board (NTSB). In September 2015, NTSB Chairman Christopher Hart testified before the Senate Commerce Committee emphasizing the importance of, and increased need for, geospatial data collection as part of improving location data and "integrity management" for underground utilities and pipelines connected to PHMSA Reauthorization.

- The federal government's National Flood Insurance Program (NFIP) is at least $24 billion in debt to U.S. taxpayers. These losses are in part due to inadequate mapping data, and result in frequent flooding or unwise construction. Current, accurate elevation and structure data, and better use of surveying technology, would help bring fairness, loss prevention and lower costs to NFIP. Fortunately to help address this problem in a coordinated process, FEMA and several other Federal agencies are working closely to collect enhanced elevation data nationwide via the US Geological Survey's 3D Elevation Program, commonly known as 3DEP.

- In 2015, NBC News reported on technical flaws in E-911 systems resulting in inaccurate location and untimely dispatching of ambulances and emergency medical personnel.

MAPPS Conclusion:

To reiterate, the Commission on Evidence-Based Policymaking should establish a priority on Federal government collection and application of geospatial data, particularly the NSDI, to address national policies and priorities.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0152
Comment on FR Doc # 2016-22002

Submitter Information

Name: John Byrd

General Comment

Please find the attachment from the National Society of Professional Surveyors (NSPS).

Docket ID USBC-2016-0003
"Commission on Evidence-Based Policymaking Comments"

Attachments

NSPS Comments to Census Bureau for the Commission on Evidence-Based Policymaking (11-14-2016)

National Society of Professional Surveyors
5119 Pegasus Court, Suite Q, Frederick, MD 21704
Phone: 240-439-4615 * Fax: 240-439-4952
Curtis W. Sumner, PLS, Executive Director
www.nsps.us.com

NSPS Comments to the Bureau of the Census for the Commission on Evidence-Based Policymaking

Docket ID USBC-2016-0003
"Commission on Evidence-Based Policymaking Comments"

Having incorporated the American Congress on Surveying and Mapping (ACSM) within the National Society of Professional Surveyors ((NSPS) www.nsps.us.com) in 2012, NSPS is the preeminent national professional society working in affiliation with the respective state societies of professional surveyors and along with persons trained, registered, or interested in the profession of surveying and mapping. NSPS advances the sciences and disciplines within the profession and strives to establish and further common interests, objectives, and political efforts to help bind the surveying profession into a unified body in the United States. NSPS is the interface for the surveying profession with a multitude of national organizations in related fields, and with federal government entities.

NSPS believes the Commission on Evidence-Based Policymaking should establish a priority on Federal government collection and application of geospatial data, particularly the National Spatial Data Infrastructure (NSDI), to address national policies and priorities.

According to studies by the Congressional Research Service (CRS), Federal Geographic Data Committee (FGDC), and others, it is estimated that as much as 90% of government information has a geospatial component. Executive Order 12906, issued by President Clinton in 1994, (and renewed by President George W. Bush in section 25 of Executive Order 13286) called for the development of the NSDI.

Federal agencies, acting through the FGDC, are responsible for coordinating the development and use of geospatial data, pursuant to Office of Management and Budget Circular A-16. As noted in numerous Government Accountability Office (GAO) reports, as recently as 2015, this process has numerous and serious shortcomings. Several Congressional hearings have come to the same conclusion.

An independent review conducted by the Coalition for Geospatial Organizations (COGO) produced a "report card" that assigned an overall grade of "C" to the NSDI in 2014.

Decision-making, policy, economics and other important governmental activities are dependent on place-or-location-based geographic information. Such spatial or geospatial data are critical to effective evidence-based policymaking.

A spatial data infrastructure is as important to the commerce and governance of our Nation as are the roads, bridges, airports, waterworks and other physical infrastructure.

National issues and priorities as varying as implementation of the Affordable Care Act, better utilization of government land and buildings, rising sea level to new vehicle to vehicle (V2V) or "connected vehicle" technology, pipeline and other underground utility location to the federal government's National Flood Insurance Program (NFIP), emergency response to E-911 systems are all dependent on current, accurate geospatial data.

NSPS respectfully urges the Commission on Evidence-Based Policymaking establish a priority on Federal government collection and application of geospatial data, particularly the NSDI and data collected by professional surveyors licensed by the states, to address national policies and priorities.

PUBLIC SUBMISSION

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0153
Comment on FR Doc # 2016-22002

Submitter Information

Name: Jennifer Goodpaster

General Comment

My child is under 18, and the government does not have the right to track him as a minor. Please shut down the National Student-unit record system.

PUBLIC SUBMISSION

As of: August 04, 2017
Received: November 14, 2016
Status: Posted
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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0154
Comment on FR Doc # 2016-22002

Submitter Information

Name: mandy hampson

General Comment

Against efforts to establish a federal "unit record" database that would create an individual data dossier of college students linked to their employment, with the strong likelihood that it would be connected to the K-12 longitudinal system.

Students information should have privacy!!!

PUBLIC SUBMISSION

As of: August 04, 2017
Received: November 14, 2016
Status: Posted
Posted: November 16, 2016
Tracking No. 1k0-8t1c-4u5s
Comments Due: December 14, 2016
Submission Type: Web

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0155
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

See attached file(s)

Attachments

CEA Comments on Evidence-Based Policymaking

November 14, 2016

Nick Hart
Policy and Research Director
Commission on Evidence-Based Policymaking
Bureau of the Census
U.S. Department of Commerce
4600 Silver Hill Road
Washington, D.C. 20233

RE: Request for Comments on Evidence-Based Policymaking (USBC-2016-0003)

Dear Mr. Hart:

Consumer Energy Alliance (CEA) welcomes the opportunity to provide comments on the Commission on Evidence-Based Policymaking's (Commission) examination of how to strengthen evidence-building to inform program and policy design and implementation.

As the Voice of the Energy Consumer, CEA is a nationwide association of energy consumers who advocate for balanced policies that support access to affordable, reliable energy. In addition to our nearly 300 company and association members that represent nearly every sector of the U.S. economy, CEA's membership includes more than 400,000 individual citizens across the country.

The United States is home to abundant natural resources that can secure the nation's long-term energy security, to the benefit of families and small businesses across the country. However, policy decisions based on undue precaution, speculation about risks, theoretical scenarios involving mere possibilities, or inadequate cost-benefit analysis threaten to unnecessarily block this historic opportunity.

To that end, policies and regulations based on evidence are necessary for the nation to best realize the economic, social, and environmental benefits associated with the development of this critical domestic energy, and CEA requests that the Commission address the importance of evidence-based federal policies and regulations as they pertain specifically to energy activities and projects and their purported environmental and societal implications.

In seeking public input, among other things, the Commission has requested feedback on how data, statistics, results of research, and findings from evaluation can be best used to improve policies and programs (Question 16). Regrettably, recent federal actions related to domestic energy leasing, development, and transportation demonstrate that such information is insufficiently considered, if considered at all.

For example, the U.S. Interior Department earlier this year announced its decision to remove its previously-proposed Mid/South Atlantic oil and natural gas lease sale from any further consideration,

citing a variety of factors that were not supported by the record.[1] Similarly, important questions have been raised about the extent to which energy regulations may not further and could even inhibit safety and environmental protection,[2] as well as the sufficiency of cost-benefit analysis for major proposed rules.[3] In one instance that some have indicated could be a solution in search of a problem, an overhaul of air quality regulations pertaining to offshore energy is being proposed without a clear demonstration that revised rules are necessary.[4]

In yet another example, even though the federal government has acknowledged that seismic exploration surveys have taken place for decades without any evidence of adverse impacts on marine animal populations, commercial fishing, or coastal communities,[5] applications for permits and related approvals to conduct seismic studies to better understand the Atlantic energy resource base have been inexplicably pending with the Interior and Commerce Departments since being requested as far back as 2014.[6]

Troublingly, the Interior Department has recently proposed new restrictions that could impact the ability to conduct seismic surveys in the Gulf of Mexico -- to the detriment of conventional and renewable energy development and coastal restoration activities – even though the Interior Department's analysis has found that there would not be any added overall benefits.[7]

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[1] *See* 2017-2022 Outer Continental Shelf Oil and Gas Leasing Proposed Program, March 2016, *available at* https://www.boem.gov/2017-2022-Proposed-Program-Decision/, and "Interior Department Announces Next Step in Offshore Oil and Gas Leasing Planning Process for 2017-2022," March 15, 2016, *available at* https://www.doi.gov/pressreleases/interior-department-announces-next-step-offshore-oil-and-gas-leasing-planning-process (alleging insurmountable conflicts with defense, fishing, and tourism activities, widespread public opposition).

[2] *See e.g.* U.S. Bureau of Safety and Environmental Enforcement, Well Control Rule, *available at* https://www.bsee.gov/guidance-and-regulations/regulations/well-control-rule, and "Cassidy Comments on Expected Well Control Rule," *available at* http://www.cassidy.senate.gov/newsroom/press-releases/cassidy-comments-on-expected-well-control-rule. *See also* U.S. Bureau of Safety and Environmental Enforcement, Arctic Drilling Rule, *available at* https://www.bsee.gov/guidance-and-regulations/regulations/arctic-rule, and National Petroleum Council's 2015 Report on "Arctic Potential: Realizing the Promise of U.S. Arctic Oil and Gas Resources," *available at* http://npcarcticpotentialreport.org/pdf/AR-Executive_Summary-Final.pdf.

[3] *See e.g.* U.S. Bureau of Safety and Environmental Enforcement Proposed Rule on Oil and Gas and Sulphur Operations in the Outer Continental Shelf –Blowout Preventer Systems and Well Control (estimating ~$883 million in total costs over 10 years), *available at* https://www.gpo.gov/fdsys/pkg/FR-2015-04-17/pdf/2015-08587.pdf, and Quest Offshore and Blade Energy Partners' BSEE Proposed Well Control Rule Cost and Economic Analysis (estimating over $32 billion in costs over 10 years), *available at* www.regulations.gov/contentStreamer?documentId=BSEE-2015-0002-0154&attachmentNumber=1&disposition=attachment&contentType=pdf. *See also* U.S. Bureau of Ocean Energy Management Proposed Rule on Air Quality Control, Reporting, and Compliance (estimating $290 million in costs over 10 years), *available at* https://www.gpo.gov/fdsys/pkg/FR-2016-04-05/pdf/2016-06310.pdf, and Joint Trades Comments on Air Quality Control, Reporting and Compliance (estimating over $3.4 billion in costs over 10 years), *available at* https://www.regulations.gov/contentStreamer?documentId=BOEM-2013-0081-0074&attachmentNumber=1&disposition=attachment&contentType=pdf.

[4] *See* U.S. Bureau of Ocean Energy Management Proposed Rule on Air Quality Control, Reporting, and Compliance, *available at* https://www.gpo.gov/fdsys/pkg/FR-2016-04-05/pdf/2016-06310.pdf, and June 20, 2016 Comment Letter from Texas Commission on Environmental Quality Executive Director Richard Hyde to the U.S. Bureau of Ocean Energy Management, *available at* https://www.regulations.gov/contentStreamer?documentId=BOEM-2013-0081-0080&attachmentNumber=1&disposition=attachment&contentType=pdf ("The BOEM should withdraw the proposed rule until it has completed the appropriate studies to determine whether the revised regulations are necessary. The BOEM has not completed the necessary studies to determine whether sources in the OCS actually have an air quality impact on states with regard to the current NAAQS. The studies the BOEM intends to use for establishing emission exemption thresholds (EET) may inform many aspects of the proposed rule or even call into question whether the proposed rule revisions are actually needed. Such information is necessary for affected lessees and operators, potentially impacted states, and other interested parties to adequately comment on the BOEM's proposal. The BOEM should withdraw the proposed rule until all studies are completed in order to justify its proposed actions.").

[5] *See* U.S. Bureau of Ocean Energy Management Science Notes, August 22, 2014, *available at* https://www.boem.gov/BOEM-Science-Note-August-2014/.

[6] *See* U.S. Bureau of Ocean Energy Management, Currently submitted Atlantic OCS Region Permits, *available at* https://www.boem.gov/Currently-submitted-Atlantic-OCS-Region-Permits/.

[7] *See* U.S. Bureau of Ocean Energy Management, Draft Programmatic Environmental Impact Statement for Geological and Geophysical Activities on the Gulf of Mexico Outer Continental Shelf, *available at* https://www.boem.gov/Gulf-of-Mexico-Geological-and-Geophysical-Activities-Programmatic-EIS/#Draft.

Another recent action of note includes the proposed expansion of the Flower Garden Banks National Marine Sanctuary, which contradicts the recommendation of the Sanctuary Advisory Council[8] and which was proposed without having accounted for the area's undiscovered resource potential (among other things), even though the U.S. Bureau of Ocean Energy Management had specifically requested that such analysis be conducted in order to better understand the full range of potential impacts of the proposed Sanctuary expansion.[9]

Other federal decisions pertaining to the Keystone XL and Dakota Access pipelines, Clean Power Plan, proposed Waste Prevention, Production Subject to Royalties, and Resource Conservation Rule (Venting and Flaring Rule), and postponement of the October 19, 2016 oil and gas lease sale near Chaco Culture National Historical Park all serve to highlight the failure to adequately consider the impact of federal decisions on consumers. In addition, they also fail to sufficiently assess environmental costs that could be incurred as a result of a greater reliance on alternative mechanisms and sources for transporting and producing energy.

All of the examples described above illustrate the need for more evidence-based decision-making, including through the use of data, statistics, research results, and findings from evaluation for improving policies, programs, and regulations.

Furthermore, recognition of the need to best use such information and the myriad of laws that require use of the best available science both underscore the importance of avoiding decisions based on mere speculation through the improper use and application of approaches like the precautionary principle. **Evidence-based decision-making presents an opportunity to avoid the improper use and application of approaches such as the precautionary principle by helping to ensure that decisions are made based on scientific information grounded in reason and practicality and more rational, effective, and realistic cost-benefit analysis**.

As to the Commission's inquiry on the extent to which data held by government agencies should be made available to qualified researchers and institutions (Question 10), **the examples described above also highlight the critical importance of ensuring that such information is made available to the public – not just to qualified researchers and institutions – for review and comment, which will enable more informed public comments that in turn facilitate better-informed decisions**.

Federal decisions related to energy significantly impact American families, citizens, and businesses across the economic spectrum. Thus, in response to Question 17 on the extent to which program and policy evaluation can or should be addressed in program designs, **it is vital that metrics designed to evaluate the impacts of federal decisions to be made pertaining to energy be proposed and subject to public review and comment at the earliest stages of the development of the applicable policy, program, or regulation**. Developing such metrics in an open manner early on will also significantly aid the effectiveness of retrospective reviews of previously-issued regulations.

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[8] *See* Flower Garden Banks Proposed Sanctuary Expansion, *available at* http://flowergarden.noaa.gov/management/expansiondeis.html.
[9] *See* August 5, 2016 Letter from U.S. Bureau of Ocean Energy Management Gulf of Mexico OCS Region Regional Director Michael Celata to NOAA Office of National Marine Sanctuaries Southeast Atlantic, Gulf of Mexico, and Caribbean Region Regional Director Dr. Billy Causey, *available at* https://www.regulations.gov/contentStreamer?documentId=NOAA-NOS-2016-0059-1305&attachmentNumber=1&disposition=attachment&contentType=pdf.

As noted in the House Report that accompanied the law authorizing and directing this Commission's work, "[w]ithout evidence, the federal government is an ineffective fiduciary on behalf of the taxpayer. Unfortunately, in many instances, federal decision-makers do not have access to the data necessary to best inform decisions. In such instances, agencies are unable to show the benefits or impacts of the programs they administer and cannot determine what, if any, unintended consequences are created by programs, or whether programs can be improved."[10]

In that regard, and in light of the significant and adverse impact that ill-informed decisions based on undue precaution, risk speculation, theoretical scenarios, and inadequate cost-benefit analysis can have on the energy and economic security of American families, citizens, and businesses, CEA respectfully urges the Commission to address these important issues in its findings and recommendations to be developed for Congress and the President.

Sincerely,

David Holt
President

Cc:

The Honorable Paul Ryan, Speaker of the U.S. House of Representatives
The Honorable Mitch McConnell, U.S. Senate Majority Leader
The Honorable Rob Bishop, Chairman, U.S. House Natural Resources Committee
The Honorable Lisa Murkowski, Chairman, U.S. Senate Energy and Natural Resources Committee
The Honorable Fred Upton, Chairman, U.S. House Energy and Commerce Committee
The Honorable Harold Rogers, Chairman, U.S. House Appropriations Committee
The Honorable Thad Cochran, Chairman, U.S. Senate Appropriations Committee
The Honorable Jim Inhofe, Chairman, U.S. Senate Environment and Public Works Committee
The Honorable Jason Chaffetz, Chairman, U.S. House Oversight & Government Reform Committee
The Honorable Ron Johnson, Chairman, U.S. Senate Homeland Security & Governmental Affairs Committee

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[10] *See* H. Rept. 114-211, *available at* https://www.congress.gov/114/crpt/hrpt211/CRPT-114hrpt211.pdf.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0156
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

Authorizing research on evidence-based policy making using tax data

Federal income tax data are uniquely valuable for research that would contribute to evidence-based policy making in the United States. Tax data provide comprehensive annual measures of many important outcomes necessary to evaluate the impacts of policies. These data also have a natural longitudinal structure, with 20 years of population-wide data currently available, so they permit both short- and long-run analyses (including of the effects of policies aimed at parents on the long-run outcomes of children).

The use of administrative tax data for research purposes is governed by 26 U.S. Code 6103 - Confidentiality and disclosure of returns and return information (hereafter Section 6103). Section 6103 imposes strict data protections, by specifying who can access the data and for which purpose. Currently, most research that contributes to evidence-based policy occurs under subsections (h) and (n), which allow the use of tax data for tax administration purposes, including the development and formulation of Federal tax

policy relating to existing or proposed internal revenue laws, related statutes, and tax conventions (6103(b)(4)(A)(ii)). More specifically, subsection (h) allows such use by US Treasury employees, while subsection (n) allows similar use by other authorized persons.

The current definition of tax administration unnecessarily limits the scope for research that is highly relevant to economic policy. It is of course reasonable to impose some limits on the topics of research that use such data, but the current definition is both arbitrary and too narrow. It is arbitrary because many policies that currently fall outside the limits could be administered (in part) through the tax system. It is too narrow because many policies that could not be administered through the tax system are critical to understanding both spending and revenue projections, and there is no reason to specifically encourage research on some policies while barring research on other, equally important policies simply because of the government agency responsible for implementing them. For instance, research studying the labor supply effects of programs such as the Supplemental Nutrition Assistance Program (SNAP), Medicaid, or Medicare which are not administered through the Federal income tax code would provide valuable evidence for policymaking but falls outside the current definition.

We therefore recommend amending the definition of tax administration in Section 6103 to further include explicitly the analysis of the effects of proposed and existing laws on federal tax revenue. This simple change would authorize evidence-based policy research more broadly. Because the tax data are superior to any other data, this simple amendment could be transformative for research on evidence-based policy in the United States, while fully maintaining all the existing thorough protections for the data, including the prohibition against public disclosure in a form that would allow identification of a particular taxpayer.

Other simple changes to the tax code would also accomplish the goal of explicitly authorizing evidence-based policy research for a broader range of policies, as well as improve the functioning of other governmental statistical functions. For instance, subsection 6103(j)(1) Statistical Use allows IRS to provide the Bureau of Economic Analysis (BEA) and the Census Bureau with a few narrow categories of variables only to the extent necessary in the structuring of censuses and national economic accounts and conducting related statistical activities authorized by law. Broadening this authority to include data for more general purposes would not only produce more research for evidence-based policy but could also result in better statistics. Similarly, Section 6108 Statistical Publications and Studies allows for special statistical studies or compilations, which might encompass evidence-based policy research, but work on those studies is generally limited to Treasury employees. Broadening this authority to include authorized other persons outside Treasury as in subsection 6103(n) is another route to expanding evidence-based policy research using federal income tax data.

Alan Auerbach, University of California-Berkeley
David Card, University of California-Berkeley
Raj Chetty, Stanford University
Amy Finkelstein, Massachusetts Institute of Technology

John Friedman, Brown University
Nathan Hendren, Harvard University
Lawrence Katz, Harvard University
Emmanuel Saez, University of California-Berkeley
Danny Yagan, University of California-Berkeley

Attachments

comments-commission_final

Request for comments from Evidence-Based Policymaking Commission
https://www.federalregister.gov/documents/2016/09/14/2016-22002/request-for-comments-for-the-commission-on-evidence-based-policymaking

Authorizing research on evidence-based policy making using tax data

Federal income tax data are uniquely valuable for research that would contribute to evidence-based policy making in the United States. Tax data provide comprehensive annual measures of many important outcomes necessary to evaluate the impacts of policies. These data also have a natural longitudinal structure, with 20 years of population-wide data currently available, so they permit both short- and long-run analyses (including of the effects of policies aimed at parents on the long-run outcomes of children).[1]

The use of administrative tax data for research purposes is governed by 26 U.S. Code § 6103 - Confidentiality and disclosure of returns and return information (hereafter Section 6103). Section 6103 imposes strict data protections, by specifying who can access the data and for which purpose. Currently, most research that contributes to evidence-based policy occurs under subsections (h) and (n), which allow the use of tax data for "tax administration" purposes, including "the development and formulation of Federal tax policy relating to existing or proposed internal revenue laws, related statutes, and tax conventions" (6103(b)(4)(A)(ii)). [2]

The current definition of "tax administration" unnecessarily limits the scope for research that is highly relevant to economic policy. It is of course reasonable to impose some limits on the topics of research that use such data, but the current definition is both arbitrary and too narrow. It is arbitrary because many policies that currently fall outside the limits could be administered (in part) through the tax system. It is too narrow because many policies that could not be administered through the tax system are critical to understanding both spending and revenue projections, and there is no reason to specifically encourage research on some policies while barring research on other, equally important policies simply because of the government agency responsible for implementing them. For instance, research studying the labor supply effects of programs such as the Supplemental Nutrition Assistance Program (SNAP), Medicaid, or Medicare – which are not administered through the Federal income tax code – would provide valuable evidence for policymaking but falls outside the current definition.

We therefore recommend amending the definition of "tax administration" in Section 6103 to further include explicitly "the analysis of the effects of proposed and existing laws on federal tax revenue." This simple change would

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[1] Population wide individual tax return data are available since 1996. Most information returns start in 1999.

[2] More specifically, subsection (h) allows such use by US Treasury employees, while subsection (n) allows similar use by other authorized persons.

authorize evidence-based policy research more broadly. Because the tax data are superior to any other data, this simple amendment could be transformative for research on evidence-based policy in the United States, while fully maintaining all the existing thorough protections for the data, including the prohibition against public disclosure in a form that would allow identification of a particular taxpayer.

Other simple changes to the tax code would also accomplish the goal of explicitly authorizing evidence-based policy research for a broader range of policies, as well as improve the functioning of other governmental statistical functions. For instance, subsection 6103(j)(1) "Statistical Use" allows IRS to provide the Bureau of Economic Analysis (BEA) and the Census Bureau with a few narrow categories of variables "only to the extent necessary in … the structuring of censuses and national economic accounts and conducting related statistical activities authorized by law." Broadening this authority to include data for more general purposes would not only produce more research for evidence-based policy but could also result in better statistics. Similarly, Section 6108 "Statistical Publications and Studies" allows for special statistical studies or compilations, which might encompass evidence-based policy research, but work on those studies is generally limited to Treasury employees. Broadening this authority to include authorized "other persons" outside Treasury – as in subsection 6103(n) – is another route to expanding evidence-based policy research using federal income tax data.

Alan Auerbach, University of California-Berkeley
David Card, University of California-Berkeley
Raj Chetty, Stanford University
Amy Finkelstein, Massachusetts Institute of Technology
John Friedman, Brown University
Nathan Hendren, Harvard University
Lawrence Katz, Harvard University
Emmanuel Saez, University of California-Berkeley
Danny Yagan, University of California-Berkeley

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0157
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Attached is the Association of American Medical Colleges (AAMC) comment letter to the Commission on Evidence-Based Policymaking.

Attachments

AAMC Comment to Commission on Evidence Based Policy

November 14, 2016

Shelley Martinez
Executive Director
Commission on Evidence-Based Policymaking

Commission on Evidence-Based Policymaking Comments
Docket ID USBC-2016-0003

Submitted electronically via www.regulations.gov

The Association of American Medical Colleges (AAMC) appreciates the Commission on
Evidence-Based Policymaking's commitment to explore the impact, feasibility, and necessity of
using available and newly collected data to propose, implement, and evaluate government
programs and policies and is pleased to provide this response to the request for comments to
guide the Commission's future activities, findings, and potential recommendations. The AAMC
is a not-for-profit association representing all 147 accredited U.S. medical schools, nearly 400
major teaching hospitals and health systems, and more than 80 academic and scientific societies.
Through these institutions and organizations, the AAMC represents nearly 160,000 faculty
members, 83,000 medical students, 115,000 resident physicians, and thousands of graduate
students and postdoctoral trainees in the biomedical sciences.

The comments below provide the Commission with: examples of recent reports that support the
need for evidence-based policymaking; a model the AAMC has used to evaluate the effect of a
revised regulation and which could be applied to other policies and programs; and the
Association's thoughts on when evidence-generation should be considered or required in the
context of new policies. As an organization that works to support the tripartite mission of
research, clinical care, and medical education at our member institutions, the AAMC supports
the increased collection and use of evidence throughout the policymaking and implementation
process, from the proposal of new policies and programs through the evaluation of the
effectiveness of those policies and programs. Without data to understand the need for or likely
impact of new initiatives, regulations or policies may be ineffective, inefficient, or unduly
burdensome without achieving intended aims. One area that has received significant attention
recently and for which there are limited but promising mechanisms and proposed frameworks for
incorporating evidence into policies and programs is in biomedical research.

**A well-documented increase in regulatory burden for biomedical research underscores the
need for thoughtful, deliberative, evidence-based policymaking.** Recent studies and reports

that have sought to catalogue the cumulative effect of this burden raise concerns that the failure to engage in systematic, evidence-based assessment of current, possibly outdated, and proposed

policies is potentially diminishing research productivity and advances. The 2012 Federal Demonstration Partnership Faculty Workload Survey of researchers found that on average, 42% of their research time was spent fulfilling administrative duties instead of conducting research.[1] Since that time, the number of new and proposed regulations and policies has only increased, placing significant stress on researchers and academic institutions. Recent reports from the National Academies of Sciences, Engineering, and Medicine (the Academies),[2] the Government Accountability Office (GAO),[3] and the AAMC[4] identify a need for federal agencies to harmonize regulations, reduce workload and costs, and consider evidence-based regulatory approaches.

Determining the effectiveness of government policies and programs is hindered by a lack of data to inform the rulemaking process and limited evidence-based mechanisms to evaluate whether agency goals are being met. The Academies' report on optimizing the nation's investment in academic research examined many regulations governing federally funded research, finding that the expansion of the regulatory system is diminishing the effectiveness of the U.S. research enterprise. Notably, the Academies' committee discovered there is "little rigorous analysis or supporting data precisely quantifying the total burden and cost to investigators and research institutions of complying with federal regulations specific to the conduct of federally funded research." The report also highlights the committee's "difficulty finding data calculating the opportunity costs associated with diverting time, expertise, resources, and potential away from the conduct of basic and applied research to meet regulatory demands."[5] The report cited the AAMC Conflict of Interest (COI) Metrics Project as an existing effort to quantify the impact and burden of research regulations on academic institutions.

The AAMC COI Metrics Project (www.aamc.org/metricsproject) was designed to measure the cost and outcomes of the 2011 revised regulations on financial conflicts of interest in Public Health Service funded research. The study, which collected data from AAMC member institutions over a course of three years (the year before the August 24, 2012 implementation date for the revised regulations and the first two years after implementation), concluded that academic institutions incurred significant costs beyond their ongoing program administration costs to fully implement the regulations. Notably, these regulations made discrete changes to an existing framework without changing the underlying structure of the rule, meaning that at the

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[1] Federal Demonstration Partnership Faculty Workload Survey (2012).
http://sites.nationalacademies.org/cs/groups/pgasite/documents/webpage/pga_087667.pdf
[2] "Optimizing the Nation's Investment in Academic Research, A New Regulatory Framework for the 21st Century," (2016).
https://www.nap.edu/catalog/21824/optimizing-the-nations-investment-in-academic-research-a-new-regulatory.
[3] See "Federal Research Grants: Opportunities Remain for Agencies to Streamline Administrative Requirements," (2016)
http://www.gao.gov/assets/680/677949.pdf.
[4] AAMC Analysis in Brief, "Implementing the Regulations on Financial Conflicts of Interest, Results from the AAMC Conflict of Interest Project", April 2015.
https://www.aamc.org/download/429214/data/april2015implementingtheregulationsonfinancialconflictsofintere.pdf
[5] "Optimizing the Nation's Investment in Academic Research, A New Regulatory Framework for the 21st Century," (2016). p 2.

time that the new rule was issued *each of these institutions already had the infrastructure, policies, and personnel in place to comply with the existing regulations.* Nonetheless, to come into compliance with the revised requirements of the regulations, 71 institutions invested almost $23 million ($22,557,744) in total, and the average number of full time equivalent employees needed to administer the requirements of the rule increased from 1.9 to 2.7. The number of "significant financial interests" (not financial conflicts of interest) collected by institutions rose by 45% as a result of new thresholds and requirements, requiring additional resources to review them for potential financial conflicts of interest. This substantial investment of resources resulted in relatively modest increases in the identification of conflicts of interest that required further review and reporting, with less than half reporting any increase in the number of identified financial conflicts of interest and all but 5 institutions of those that did see increases reported identifying fewer than 20 more conflicts of interest the year after the rule was implemented than the year before.

Based on AAMC's findings in addition to data from surveys by the Council on Government Relations and the National Science Board's Task Force on Administrative Burden, the Academies' report concluded that these surveys "call into question whether the new COI rule is accomplishing its intended goal of protecting the integrity of the scientific process and the welfare of research subjects, especially given the documented increases in administrative burden to institutions and investigators in the year following implementation of the rule."[6]

Efforts like the AAMC COI Metrics Project not only demonstrate how objective, rigorous, and systematic evaluation can be used as a framework for evidenced-based review of government programs, policies, and regulations, but also suggest how such a model could be employed *prospectively* to assess the likely impact of proposed regulation and policy (Questions 1, 16, and 17). The key to effective evidence generation in this context is the early consideration of whether the type of policy being considered would benefit from a prospective pilot or data collection and identification of the types of data that will best demonstrate the impact and the effectiveness of the policy or program. Partnership with those served by or affected by the initiative can be an efficient and effective way to answer these threshold questions. Recognizing that the required evidence will not always come from existing government data, pilot programs or collaboration with institutions, associations, and communities can both increase engagement in the process and enhance the changes that the initiative will accomplish its desired goals.

A 2013 memorandum to federal agency and department heads from the Office of Management and Budget captured the desire to "deliver[] a smarter, more innovative, and more accountable government for citizens," one component of which is for government agencies to "continually improve program performance by applying existing evidence about what works, generating new knowledge, and using experimentation and innovation to test new approaches to program

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[6] "Optimizing the Nation's Investment in Academic Research, A New Regulatory Framework for the 21st Century," (2016). p. 91.

delivery."[7] This call for applying evidence to program delivery can be seen as a welcome and logical extension of the 2011 mandate to streamline regulations through retrospective review by agencies and increase interagency coordination to harmonize regulations.[8] However, as the GAO report concludes, with respect to the administration of federal grants, "opportunities exist… to further reduce universities' administrative workload and costs," and "efforts to standardize requirements have not fully addressed variations in agency implementation of requirements."[9]

Agencies should integrate robust evidenced based evaluation mechanisms into the proposed rulemaking process to ensure that regulatory decisions are made using the best and most current evidence available (Question 17). The failure to gather and use data about impact, including burden and outcomes, can lead to protracted or ultimately unsuccessful policymaking processes where the stated objectives of the policy are poorly reflected in its issued form or not achieved in its implementation. A failure to determine in advance how that policy will be evaluated leaves agencies and the regulated communities equally uninformed about which policies are working as intended. As a current example, the Academies report discussed at length the Department of Health and Human Services' Notice of Proposed Rulemaking (NPRM) for the "Common Rule" which governs federally funded research with human subjects. The Academies made the recommendation to suspend the Common Rule NPRM, concluding that the proposed rule was "marred by omissions, the absence of essential elements, and a lack of clarity."[10] Among other concerns, the report highlights the committees' concern with the proposed revision prohibiting all research with deidentified biospecimens without written consent, a concern echoed which was also echoed in AAMC's comment letter to HHS, which stated that the revision as proposed would place "extraordinary stresses […] on the research community as a whole" and "without increasing meaningful understanding […] or protection of human subjects."[11] If the rule is implemented as proposed, it appears that there is no specific plan to evaluate its cost, impact, or success. Given the significant costs that would be needed to implement just this one aspect of the proposed rule and the potential chilling effect on essential research with biospecimens, the lack of a plan to gather evidence to evaluate the policy is problematic.

The Commission has asked if program or policy evaluation can or should be incorporated in program designs. If the evidence and criteria on which the success of a proposed policy would be measured were included as a routine and reviewable component of the policymaking process, agencies would have the benefit of stakeholder input on the evaluation process, best sources of

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[7] "Next Steps in the Evidence and Innovation Agenda," Memorandum to the Heads of Departments and Agencies (July 26, 2013), https://www.whitehouse.gov/sites/default/files/omb/memoranda/2013/m-13-17.pdf.

[8] Executive Order 13563: "Improving Regulation and Regulatory Review," 76 Fed Reg. 3821 (Jan. 18, 2011).

[9] "Federal Research Grants: Opportunities Remain for Agencies to Streamline Administrative Requirements," (2016), pg. 3.

[10] "Optimizing the Nation's Investment in Academic Research, A New Regulatory Framework for the 21st Century," (2016) p.167, The Academies report also recommends the establishment of a new commission to reconsider the process for protecting and engaging human research subjects, p.168.

[11] AAMC Comment Letter, January 4, 2016 (available at https://www.aamc.org/download/451896/data/aamcsubmitscommentstohhsonthecommonrulenprm.pdf).

data to support the evaluation, and whether the proposed metrics are likely to provide the agency and the public with meaningful evidence about a program or policy's effectiveness. This would set a precedent for an unparalleled and productive level of engagement between agencies and stakeholders, demonstrating not only accountability, but a commitment to the shared goal of ensuring that federal policies are implemented for the right reasons and meet clear, articulated objectives.

AAMC is supportive of the Commission's interest in using data to build evidence to inform program and policy design. The AAMC would be happy to work with the Commission on any of the issues discussed in our letter, provide additional information about the methodology or findings from the AAMC COI Metrics Project, or discuss the evidence-based policymaking across any areas that affect the academic research community. For more information, please contact me or Heather Pierce, Senior Director, Science Policy and Regulatory Counsel (Association of American Medical Colleges, 655 K Street NW, Suite 100, Washington DC 20001, (202) 478-9926, hpierce@aamc.org).

Sincerely,

Ross E. McKinney, Jr, MD
Chief Scientific Officer

PUBLIC SUBMISSION

As of: August 04, 2017
Received: November 14, 2016
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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0158
Comment on FR Doc # 2016-22002

Submitter Information

Name: Michael Leuzzi

General Comment

I oppose the continuation or increase of federal collection of individual student data. We should not have a federal unit record system of student data.

Tracking autonomous free individuals through most of their lives in the name of better information for the benefit of others may be justifiable, but its extremism should at the very least be acknowledged and addressed.

Thank you for listening!

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0159
Comment on FR Doc # 2016-22002

Submitter Information

Name: Wendy Hart

General Comment

I would like to go on record opposing this expansion of federal powers. Data is the new gold. It will not be able to be protected, and any "benefit" will not be seen by those providing, in many cases, unwittingly, access to their data. Data is person and property at the same time. It is the sworn duty of this government to protect it, not to amass it or exploit it. Please leave the prohibitions in place, consistent with Article 1 Section 8 of the Constitution and the 10th Amendment.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0160
Comment on FR Doc # 2016-22002

Submitter Information

Name: Shelley White

General Comment

Please, for the privacy, safety, and security of our children and citizens, no national student database. The US is not a communist dictatorship. Let us live our lives freely without complete government oversight. Thank you.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0161
Comment on FR Doc # 2016-22002

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General Comment

(The attached PDF includes Figures 1 and 2 that are referred to in our response)

Docket ID: USBC-2016-0003
RFC Subject: Commission on Evidence-Based Policymaking Comments
Question #16: How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?

To evaluate the effectiveness of federal programs and tax expenditures, we* recommend that evidence based policy making using data and statistics should be embedded in a Structured Decision Making (SDM: Figure 1) framework, and ideally implemented using a Decision Analysis Support System (DASS: Figure 2) that closely reflects the SDM approach. SDM is highly applicable to monitoring and evaluation processes that help improve programmatic performance and achieve results.

SDM is a class of methods used to help individuals and groups think through multidimensional choices constrained by science, stakeholders, and trade-offs, while

taking into consideration uncertainties and value-judgments that are inherent in this process (Gregory et al 2012). A DASS may be thought of as a computer-based decision support system that incorporates these multidimensional choices by using statistical decision tools such as decision analysis, sensitivity analysis, and value of information analysis (Black and Stockton 2009).

Incorporating data and statistics using an SDM approach begins with a comprehensive understanding of the decision landscape (e.g., programmatic objectives, desired outcomes, possible implementation options, regulatory aspects of the decision). The decision landscape may be thought of as desired program improvements and associated policy changes that improve the government's fiduciary responsibilities on behalf of the taxpayer. The values and preferences of stakeholders are made explicit and translated into decision objectives. Data and models are used where appropriate to quantify the effects of various implementation options. Probabilistic consequence modeling can then be used for forward and backward reasoning, sensitivity analyses used to identify influential variables, and value of information analyses used to address reducing sources of uncertainty.

Data, statistics, results of research, and findings from evaluation, when evaluated using an SDM approach and implemented using a DASS, facilitate defensibility, traceability and transparency of the decision process for evaluating the effectiveness of federal programs and tax expenditures, thus leading to improved and more cost-effective policies and programs.

*Neptune and Company, Inc. is a small, employee-owned business that specializes in (1) statistical analysis and quality assurance, (2) development of decision analysis methods/software to facilitate all forms of risk management.

References
R. Gregory, L. Failing, M. Harstone, G. Long, T. McDaniels, D. Ohlson (2012) Structured Decision Making: A Practical Guide to Environmental Management Choices. Hoboken, NJ. John Wiley & Sons.
P. Black, T. Stockton (2009). Basic Steps for the Development of Decision Support Systems. In Decision Support Systems for Risk-Based Management of Contaminated Sites (pp. 1-27). Boston, MA: Springer US. http://doi.org/10.1007/978-0-387-09722-0_1

Attachments

2016-11-14.CommisionEvidenceBasedPolicyMaking.v1.5

Docket ID: USBC-2016-0003
RFC Subject: Commission on Evidence-Based Policymaking Comments
Question #16: How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?

To evaluate the effectiveness of federal programs and tax expenditures, we* recommend that evidence based policy making using data and statistics should be embedded in a <u>S</u>tructured <u>D</u>ecision <u>M</u>aking (SDM: Figure 1) framework, and ideally implemented using a <u>D</u>ecision <u>A</u>nalysis <u>S</u>upport <u>S</u>ystem (DASS: Figure 2) that closely reflects the SDM approach. SDM is highly applicable to monitoring and evaluation processes that help improve programmatic performance and achieve results.

SDM is a class of methods used to help individuals and groups think through multidimensional choices constrained by science, stakeholders, and trade-offs, while taking into consideration uncertainties and value-judgments that are inherent in this process (Gregory et al 2012). A DASS may be thought of as a computer-based decision support system that incorporates these multidimensional choices by using statistical decision tools such as decision analysis, sensitivity analysis, and value of information analysis (Black and Stockton 2009).

Incorporating data and statistics using an SDM approach begins with a comprehensive understanding of the decision landscape (e.g., programmatic objectives, desired outcomes, possible implementation options, regulatory aspects of the decision). The decision landscape may be thought of as desired program improvements and associated policy changes that improve the government's fiduciary responsibilities on behalf of the taxpayer. The values and preferences of stakeholders are made explicit and translated into decision objectives. Data and models are used where appropriate to quantify the effects of various implementation options. Probabilistic consequence modeling can then be used for forward and backward reasoning, sensitivity analyses used to identify influential variables, and value of information analyses used to address reducing sources of uncertainty.

Data, statistics, results of research, and findings from evaluation, when evaluated using an SDM approach and implemented using a DASS, facilitate defensibility, traceability and transparency of the decision process for evaluating the effectiveness of federal programs and tax expenditures, thus leading to improved and more cost-effective policies and programs.

*Neptune and Company, Inc. is a small, employee-owned business that specializes in (1) statistical analysis and quality assurance, (2) development of decision analysis methods/software to facilitate all forms of risk management.

References

- R. Gregory, L. Failing, M. Harstone, G. Long, T. McDaniels, D. Ohlson (2012) Structured Decision Making: A Practical Guide to Environmental Management Choices. Hoboken, NJ. John Wiley & Sons.
- P. Black, T. Stockton (2009). Basic Steps for the Development of Decision Support Systems. In Decision Support Systems for Risk-Based Management of Contaminated Sites (pp. 1–27). Boston, MA: Springer US. http://doi.org/10.1007/978-0-387-09722-0_1

Figure 1. The components of structured decision making.
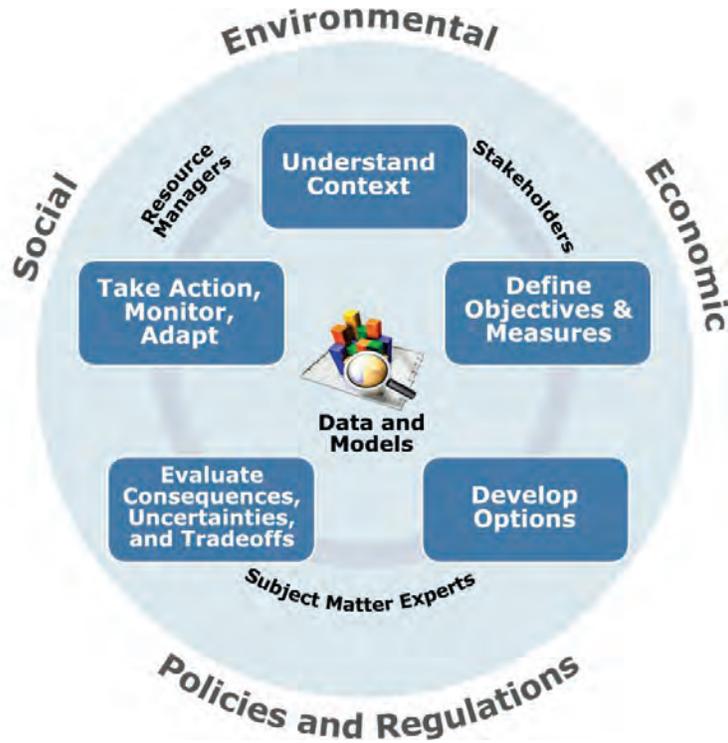
Figure 2. An example of a decision analysis support system for structured decision making.
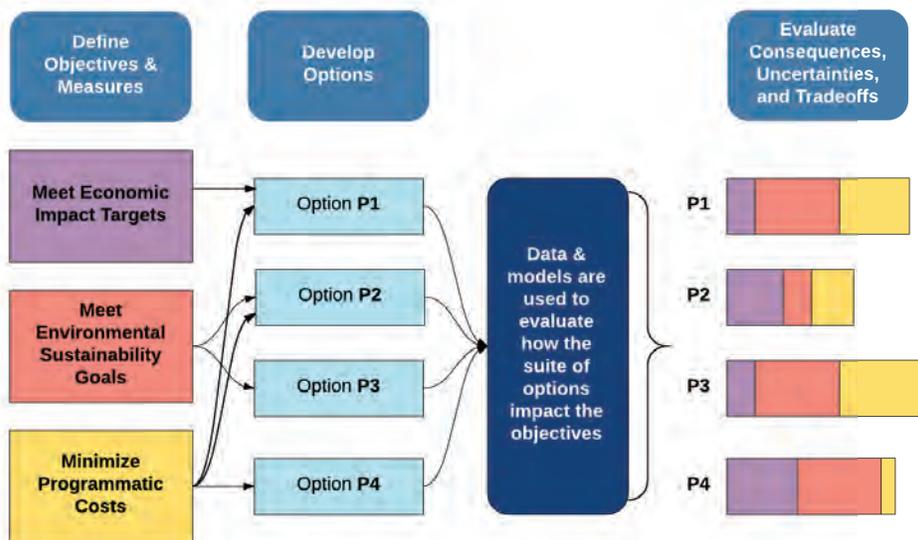
PUBLIC SUBMISSION

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0162
Comment on FR Doc # 2016-22002

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General Comment

see attached file

Attachments

Response to Federal Register Notice Docket Number 160907825

Response to Federal Register Notice Docket Number 160907825-6825-01
Request of Comments on Evidence-Based Policy Making
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These comments describe a pathway to using data to improve outcomes in one especially important policy area that could be emulated in other areas. They do not address every issue raised by the Federal Register Notice (FRN). This is because, in my view, focusing on integrating all of the elements needed to resolve a major problem of national significance, not just assembling the data, will lead to constructive action. In contrast, partitioning the problem into separate elements and addressing each element individually too often fails to produce desired results because not all of the necessary elements are in place.

In other words, there are states, such as Florida and Washington, that have integrated data systems that can be used to produce useful information to improve policy effectiveness, but often do not lead to improvements because these data are not used to produce relevant measures, or useful information is not effectively disseminated, or insufficient attention is given to assessing why the information is not effectively used.

The comments presented below primarily are drawn from a paper published in April 2013 by the Hamilton Project, Brookings Institution: "*Using Data to Improve the Performance of Workforce Training*" by Louis S. Jacobson & Robert J. LaLonde. They focus on how the federal government can effectively work with states and researchers to improve education and training outcomes by creating and disseminating information that would actually (rather than hypothetically) improve the choices made by ordinary citizens seeking to increase their earnings, the institutions providing the education and training, and the policy-makers overseeing those institutions.

There are five key elements to reaching policy-oriented goals:
1. Defining the problem to be addressed.
2. Assembling relevant data.
3. Determining what measures should be used with the data.
4. Disseminating the information to the relevant decision makers.
5. Obtaining feedback to assess how well the system met its goals, what could be done to overcome impediments, and sustain cost effective programs.

The idea presented in the Hamilton Project paper is to create a national competition open to consortium of states that would create entities that would be responsible for executing all of the above elements. The goal would be to help individuals obtain the education and training needed to substantially raise their earnings. Most states already have the required data to help identify high return programs that are likely to be completed by various individuals. Many would need help organizing the data such as that on high school and college course taking and linking those data to earnings data. Some would need legislative changes that would permit the linking of the data.

However, a major issue is how to use the data to produce measures that would help improve individual choices. In particular, it is not sufficient to simply describe the number of students starting programs, completing programs, and earnings following completion. Additional information is needed to help

potential enrollees determine if they have the academic and other qualifications needed to complete the program, and in many cases, help individuals understand the characteristics of jobs for which they would qualify.

Similarly, a major issue is how to disseminate the information so it can be effectively used. Often it is assumed that the individuals who need to make decisions about education and training can use websites with various type of "report card" information. However, even if the data are necessary to make solid choices, they would be insufficient if extensive assessment and counseling was not also provided. Indeed, CUNY's ASAP program which has proven to double the rate of community college credentialing does not depend on use of data to help students select programs, but on having 10 times the ordinary availability of counselors to help students get through their programs.

The final key component is to have an evaluation system in place to assess how well the goals are being met, what are the factors that impede reaching goals, and how those impediments can be overcome. One underlying premise is that developing a complete system is a complex task that requires careful monitoring to determine that all components are working effectively together. A second premise is that if an information system is demonstrated to be cost effective it would receive the long-term support it deserves. In particular, it is likely that improved education and training choices would lead to raising the return on these investments to more than pay for the costs of the system used to improve those choices.

In summary, the view expressed here is that the best option for the federal government is to focus on development of entities that would encourage the federal government, states, and researchers to work together to develop data development and dissemination systems that provide the information needed to improve policy outcomes, not simply resolve the problems that have only allowed a few states to assembly the types of data required to improve policy outcomes.

In large part, this position stems from recognizing that the Florida system used to produce a great deal of highly useful policy-oriented research stemmed from convincing key decision-makers in the executive and legislative branches that the information was useful in reaching goals held in common. If the data system was developed in isolation from demonstrating its value to decision-makers, it is doubtful that the system would have been given the resources needed to create and sustain the system.

With respect to the specific FRN questions the points above are most relevant to Q3 & Q4—describing the most appropriate infrastructure; Q6—suggesting competitions to create several multistate consortiums would be most appropriate for creating systems that would end-up improving decision-making; and Q8—suggesting sustained funding should be secured by demonstrating that the information has led to increasing the cost-effectiveness of government programs that pay for the systems many times over.

I have many ideas related to the other specific questions. However, I strongly believe that the key to seeing the desired improvement in policy-making depends on holding a competition that offers sufficient funds to cause states already well on their way to create the entities described above to demonstrate the effectiveness of these entities.

PUBLIC SUBMISSION

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

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Comment on FR Doc # 2016-22002

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General Comment

See attached file(s)

Attachments

AERA Comments to CEP_FINAL_11-14-16

November 14, 2016

Mr. Nick Hart
Policy and Research Director
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Docket ID: 160907825-6825-01
Commission on Evidence-Based Policymaking Comments

Dear Mr. Hart,

On behalf of the American Educational Research Association (AERA), I am pleased to have the opportunity to offer comments in response to the request from the Commission on Evidence-Based Policy to inform the Commission's work and provide recommendations of core questions. The AERA is the major national scientific association of more than 25,000 faculty, researchers, graduate students, and other distinguished science professionals dedicated to advancing knowledge about education, encouraging scholarly inquiry related to education, and promoting the use of research to improve education and serve the public good. Founded in 1916, the association is committed to the highest standards of research rigor, integrity, and responsibility for research scientists, as reflected in such policy documents as AERA's research standards and code of ethics as well as longstanding programs to encourage data sharing and access consonant with responsible use.

Our members use and analyze federal statistics and data in their research and rely on the objectivity and trustworthiness of this information. AERA members are interested in increasing access to and usefulness of impartial and accurate information to best improve policy and practice decision making. Our division of Education Policy counts over 2,500 members and our Measurement and Research Methods division more than 3,000 research science. Also, AERA members participated in 25 established Special Interest Groups focused on various aspects of evaluations and statistics.

AERA applauds the Commission on Evidence-Based Policymaking for the comprehensive examination, careful consideration and inclusive approach. AERA shares the belief that increased access to reliable data can dramatically bolster our ability to best guide and drive the most effective and informed development and evaluation of policy.

Given the considerable expertise on the panel and the extensive feedback from the community both to these questions and in meetings and public hearings, we are responding selectively to questions only where AERA has specific examples in education to offer or a unique observation based on our own work in this area. We have tried to highlight some of the most useful examples from the decades of guidance and practice addressing these important questions. The Commission can play a critical leadership role establishing how to expand access to administrative, survey and linked data consonant with appropriate concerns for privacy and protecting confidentiality.

The time is especially ripe for a fresh look under the current circumstances of expanded electronic access to wide-ranging information, growing capacity to examine this information efficiently, and rising costs in time and money in implementing major surveys. We have seen in just this past decade promising uses of rapidly collected digital information, the transformation of administrative information largely in paper form to digitized administrative data systems, and a deeper appreciation that quality administrative data, well and widely utilized, can make for more robust research that can speak to policy and program development and implementation.

Fortunately there has been considerable experience in the federal government, in particular in the federal agencies, with using administrative data systems, linking data, and devising mechanisms for secure access and use. There has also been considerable guidance about how best to expand use of administrative data systems with appropriate mechanisms for data protection and access commensurate with the level of risk. For over 30 years, the National Academies, most typically at the request of federal agencies, has examined and provided guidance on access to federal data assets aligned with privacy protection, confidentiality, and data security. In those works, including those since the turn of the century, are useful examples, observations, and recommendations that can inform the Commission's work. See Appendix A.

This comment responds specifically to questions raised by the Commission. Nonetheless, we wish also to make four general points that might be helpful as the Commission proceeds with its essential work.

1. Define 'evidence' and 'effectiveness' broadly to account for the spectrum of outcomes significant to assessing program and policy goals.

2. Ensure a robust understanding of the methodologies essential to studying effectiveness, short- and long-term consequences, and unintended effects. These would include but not be limited to experimental and quasi-experimental methods, longitudinal designs, statistical matching, and so forth.

3. Examine and invest in making accessible federal data assets, including administrative information, under institutional arrangements and data use agreements that maximize the capacity to examine policies and programs consonant with privacy provisions and confidentiality protections. Review current data use agreements and data management plans to maximize access under conditions of data security.

4. Evaluate the leadership of statistical agencies, maximizing autonomy to allow for expert advice based on sound evidence and to safeguard statistical agencies from political influence. Leadership should reflect technical expertise and understanding of data use.

These are guiding principles relevant to the Commission's three sets of questions. They also are useful for devising a framework to inform evidence-based policy and evaluation.

Overarching Questions

1. Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

There is a history of practice and guidance from the federal statistical agencies and from the Office of Management and Budget (OMB) Office of Information and Regulatory Affairs (OIRA) directed to promoting the quality of federal data and statistical information to enhance evidence-based policies and programs. The leadership of OIRA's Statistical and Policy Office has been instrumental in the federal and international arenas that could be usefully extrapolated in considering how best to strengthen data quality, access, and use with state and local data.

In the domain of education programs and policy, the State Longitudinal Data Systems (SLDS) Grant Program, authorized by the Educational Technical Assistance Act of 2002, Title II of the statute that created the Institute of Education Sciences (IES), is arguably, a successful framework for state educational evidence-building.

Thanks to federal support, the program has enabled the successful design, development, implementation, and expansion of K12 and P-20W (early learning through the workforce) longitudinal data systems in nearly every state. In fact, 47 states having legislated state funds to continue the operations after using federal funds to build the infrastructure. As articulated by Robert Swiggum in his testimony in front of the House Education and Workforce Committee, SLDS enable states to efficiently and accurately manage, analyze, and use education data. In Georgia, SLDS have led to data-informed decisions to improve student learning and outcomes.

As part of a joint conference directed to developing model guidelines for use of longitudinal administration systems convened by AERA and the Organisation for Economic Co-operation and Development (OECD) in December 2015, representatives from administrative data systems described how linkages in data sets can provide for robust findings with policy implications. One model for the U.S. is the United Kingdom's Administrative Data Research Network, a repository of administrative linked and de-identified data sets made available to social science researchers under secure conditions. Data linked among multiple sources for approved research projects have provided relevant information for policy decisions with the goal of benefiting society. For example, the National Pupil Database – which connects data sources for exam results, attendance records, name of the school a child is attending with a student identifier – allows for decisions on how much money from the national education budget is given to particular local authorities and schools. Another project in process is linking data on unemployment benefits and successive sanctions with Scottish data on school attendance to determine whether there are unintended consequences to children when parents' unemployment benefits are stopped with the aim to encourage them to return to work.

2. Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?

The National Center for Education Statistics (NCES) has pioneered making available data sets with personally identifiable information (PII) to researchers, through restricted-use data licenses. Authorized users are subject to the laws, regulations, and penalties that apply to the NCES use of confidential data. The NCES Statistical Standards Program monitors the licensing process and inspections. Wide access to NCES data is balanced by stringent sanctions for violation. The NCES website has extensive materials on data access to public use and restricted-use data, including a Restricted-Use Data Procedure Manual (NCES 2007 at http://nces.ed.gov/pubs96/96860rev.pdf)

The Interuniversity Consortium for Political and Social Research (ICPSR) has established a protocol for preserving respondent confidentiality that starts with the depositors of data,

requiring documentation for information that could identify respondents, which could establish restricted use to the data. ICPSR offers four levels of restricted use: Traditional Restricted Data, Physical Data Enclave, Restricted Online Analysis, and Delayed Dissemination.

Data Infrastructure and Access

3. Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?
4. What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation, and analysis purposes?

When considering best practices regarding data infrastructure, I encourage you to consult the OMB *Guidance for Providing and using Administrative Data for Statistical Purposes released on February* 14, 2014. This document provides tools and detailed guidance on the interaction of the use of administrative data for statistical purposes with the Privacy Act requirement. In addition, *Sharing Data While Protecting Privacy* (M-11-02 of November 3, 2010), *Open Data Policy-Managing Information as an Asset* (M-13-13 of May 9, 2013), and *Next Steps in the Evidence and Innovation Agenda* (M-13-17 of July 26, 2013) are three useful OMB memoranda.

5. What challenges currently exist in linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

Looking specifically at NCES, efforts to access data in the state longitudinal data systems (SLDS) must be negotiated with each individual state. Even for states inclined to make every effort to share state level data, laws and regulations regarding protections of student data privacy are sufficiently ambiguous leading states to err on the side of caution deciding against sharing data.

8. What factors or strategies should the Commission consider for how a clearinghouse(s) could be self-funded? What successful examples exist for self-financing related to similar purposes?

While still too early to tell if effective, the recently passed bipartisan reauthorization of the Elementary and Secondary Education Act includes Sec. 8601. Evaluations. This section requires IES to do an evaluations of each program authorized in the Act. The legislation allows the Secretary to reserve .5 percent of the program account for the evaluation costs and dissemination of findings. In addition the section provides guidance on the design of evaluations.
  (a) RESERVATION OF FUNDS. – Except as provided in subsection (b) and (e), the Secretary, in consultation with the Director of the Institute of Education Sciences, may reserve not more than 0.5 percent of the amount appropriated for each program authorized under this Act to carry out activities under this section. (ESSA)

In addition to the cost of conducting evaluations, I encourage the Commission to think about the workforce capacity to most instructively conduct and interpret evaluations. IES has developed tremendous technical and capacity in this regard, thanks to hiring flexibility permitted by their accepted service hiring authority.

9. What specific administrative or legal barriers currently exist for accessing survey and administrative data?

As mentioned in previous responses, numerous legal, regulatory and operational barriers prevent federal agencies from linking to state data. Census and NCES have been required to approach each state individually to initiate data linkages. Even when states are motivated to share data, they are often advised against doing so due to legal concerns.

10. How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions?"

Administrative and survey data held by government agencies should be maximally available to qualified researchers and institutions. Users might be required to provide data management plans that would give insight into the researcher's intentions for their data both during and after the research project. (ICPSR)

14. What incentives may best facilitate interagency sharing of information to improve programmatic effectiveness and enhance data accuracy and comprehensiveness?

Interagency information sharing is presumably beneficial to all involved agencies. Removing obstacles might be a kin to providing incentives. In addition to alleviating concerns about the legality of sharing information, agencies engaged in high level analysis of data would benefit from the flexibility in hiring high qualified staff to maximize the benefit of increasing access to data and effective data management plans.

Data Use in Program Design, Management, Research, Evaluation, and Analysis

15. What barriers currently exist for using survey and administrative data to support program management and/or evaluation activities?

Currently, administrative and legal barriers prevent the use of survey and administrative data. For example, researchers looking to determine how certain P-12 programs may effect wages later in life are unable to access wage information readily available with IRS or the Social Security Administration.

Another barrier to using survey and administrative data is the variation in definitions. A successful effort to standardize terms was the Common Education Data Standards (CEDS) voluntarily developed common data standards for a key set of education data elements to streamline the exchange, comparison, and understanding of data within and across early learning through postsecondary and workforce settings.

19. To what extent should evaluations specifically with either experimental (sometimes referred to as "randomized control trials") or quasi-experimental designs be institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?

AERA supports the use of the most rigorous methods consonant with the research issues and contexts of study and program evaluation. We appreciate the importance of randomized control

trials and experimental and quasi-experimental designs. We encourage, however, rather than institutionalizing any single method, embracing the importance of using methods appropriate to the research or the program being evaluated. RCT designs are valuable methodologies in isolating effects when appropriate; nevertheless, many interventions and programs cannot be introduced under conditions that would differentially provide known benefits or potentially introduce risks that would negatively affect individuals.

Please refer to the AERA volume, Estimating Causal Effects: Using Experimental and Observational Designs (2005) and, Appendix B, the AERA Definition of Scientifically Based Research. See also the Institute of Education Sciences and the National Science Foundation guidance. Common Guidelines for Education Research and Development, August 2013.

AERA very much supports the Commission's efforts and the openness that you bring to this complex and ambitious task. We think the progress you can making in promoting sound policy and programs through greater secure and responsible use of data systems is enormous. We welcome helping and supporting you in that effort.

Sincerely,

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Appendix A

**Reports on Protecting Participants and Facilitating Research
from the National Academies
With Additions from document initially prepared in October 2011
by Dr. Connie Citro, Committee on National Statistics**

The challenge of protecting human subjects in biomedical and social and behavioral sciences research while facilitating responsible research and access to research data has engaged the attention of federal agencies, the National Academies, and the scientific community for decades. Below is a chronological list of major reports from the National Research Council and the Institute of Medicine.

National Research Council. (1979). *Privacy and confidentiality as factors in survey response.* Washington, DC: National Academy of Sciences.

National Research Council. (1985). *Sharing research data.* Washington, DC: National Academy Press.

National Research Council. (1993). *Private lives and public policies: Confidentiality and accessibility of government statistics.* Washington, DC: National Academy Press

National Research Council. (2000). *Improving access to and confidentiality of research data: Report of a workshop.* Washington, D.C.: National Academy Press.

Institute of Medicine. (2000). *Protecting data privacy in health services research.* Washington, DC: National Academy Press.

Institute of Medicine. (2001). *Preserving public trust: accreditation and human research participant protection programs.* Washington, DC: National Academy Press.

Institute of Medicine. (2002). *Responsible research: a systems approach to protecting research participants.* Washington, DC: The National Academies Press.

National Research Council. (2003). *Protecting participants and facilitating social and behavioral sciences research.* Washington, DC: The National Academies Press.

Institute of Medicine. (2004). *The ethical conduct of clinical research involving children.* Washington, DC: The National Academies press.

National Research Council and Institute of Medicine. (2005). *Ethical considerations for research on housing-related health hazards involving children.* Washington, DC: The National Academies Press.

National Research Council. (2005). *Expanding access to research data: Reconciling risks and opportunities.* Washington, DC: The National Academies Press.

Institute of Medicine. (2006). *Effect of the HIPAA privacy rule on health research: Proceedings of a workshop presented to the National Cancer Policy Forum.* Washington, DC: The National Academies Press.

National Research Council. (2006). *Improving business statistics through interagency data sharing: Summary of a workshop.* Washington, DC: The National Academies Press.

National Research Council. (2007). *Putting people on the map: Protecting confidentiality with linked social-spatial data.* Washington, DC: The National Academies Press.

National Research Council. (2007). *Engaging privacy and information technology in a digital age.* Washington, DC: The National Academies Press.

Institute of Medicine. (2007). *Ethical considerations for research involving prisoners.* Washington, DC: The National Academies Press.

National Research Council. (2007). *Understanding business dynamics: An integrated data system for America's future.* Washington, DC: The National Academies Press.

Institute of Medicine. (2009). *Beyond the HIPAA privacy rule: enhancing privacy, improving health through research.* Washington, DC: The National Academies Press.

National Research Council. (2009). *Ensuring the integrity, accessibility and stewardship of research data in the digital age.* Washington, DC: The National Academies Press.

National Research Council. (2009). *Principles and practices for a federal statistical agency.* Washington, DC: The National Academies Press.

National Research Council. (2009). *Protecting student records and facilitating education research: A workshop summary.* Washington, DC: The National Academies Press.

National Research Council. (2010). *Conducting biosocial surveys: Collecting, storing, accessing, and protecting biospecimens and biodata.* Washington, DC: The National Academies Press.

National Research Council. (2010). *Protecting and accessing research data from the Survey of Earned Doctorates: a research summary.* Washington, DC: The National Academies Press.

National Research Council (2014). Proposed revisions to the common rule for the protection of human subjects in the behavioral and social sciences. Washingto, DC: The National Academies Press.

Appendix B: Alternate Definition of Scientifically Based Research (SBR)

AERA offers the following definition of scientifically based research (SBR) provides a broader definition grounded in scientific standards and principals. It was developed by an expert working group convened by the American Educational Research Association (AERA) in June 2008.

<div align="center">

Alternate Definition of Scientifically Based Research (SBR)
Supported by AERA Council, July 11, 2008
</div>

I.   The term "principles of scientific research" means the use of rigorous, systematic, and objective methodologies to obtain reliable and valid knowledge. Specifically, such research requires:

    A.   development of a logical, evidence-based chain of reasoning;

    B.   methods appropriate to the questions posed;

    C.   observational or experimental designs and instruments that provide reliable and generalizable findings;

    D.   data and analysis adequate to support findings;

    E.   explication of procedures and results clearly and in detail, including specification of the population to which the findings can be generalized;

    F.   adherence to professional norms of peer review;

    G.   dissemination of findings to contribute to scientific knowledge; and

    H.   access to data for reanalysis, replication, and the opportunity to build on findings.

II. The examination of causal questions requires experimental designs using random assignment or quasi-experimental or other designs that substantially reduce plausible competing explanations for the obtained results. These include, but are not limited to, longitudinal designs, case control methods, statistical matching, or time series analyses. This standard applies especially to studies evaluating the impacts of policies and programs on educational outcomes.

III. The term "scientifically based research" includes basic research, applied research, and evaluation research in which the rationale, design, and interpretation are developed in accordance with the scientific principles laid out above. The term applies to all mechanisms of federal research support, whether field-initiated or directed.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0164
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

Please don't implement the National Student-unit record system! We don't need another nationalized invasion of our children's privacy posing as an improvement in our educational system. Enough already. Return education to the states and local communities where it belongs.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

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Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0165
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

I am a teacher, parent, and citizen and wish to express my strong opposition to the creation of any sort of national student database. Teaching is a local enterprise best governed by school boards and communities. Local communities can benefit from broad general guidance and funding support from the federal and state governments to assure that basic civil rights laws are enforced and that there is equity in funding. Teachers and parents want a strong locally controlled system of truly public schools.

Data mining our students does not serve the national interest of a free and democratic society. The new Commission on Evidence-based Policymaking being pushed by Speaker Paul Ryan and Senator Patty Murray , and urged (by Bill Gates and the other foundations/corporations that want access to more and more of our children's data) to establish a national student-unit record system that would allow government tracking of citizens from Pre- school throughout their careers is invasive and anti-democratic. It takes our children and turns them into commodities to be tracked. In a free and fair society this cannot happen and I wish to reiterate my strong opposition to such a system.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0166
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Please shut down the establishment of a National Student-unit record system. This is not necessary... you do not need cradle to the grave information on my children. I do not see why you are allowing Bill Gates, the self appointed Education Czar, to push this through.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0167
Comment on FR Doc # 2016-22002

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General Comment

See attached file(s)

Attachments

2016.11.16 CEP Public Comment

November 16th 2016

<u>Submitted Electronically</u>

Shelly Martinez,
Executive Director of the Commission on Evidence-Based Policymaking
Bureau of the Census

RE: U.S. Census Bureau Request for Comments for the Commission on Evidence-Based Policymaking (Federal Register Doc. 2016-22002)

<u>**Introduction**</u>

J-PAL North America (J-PAL NA), based in the Department of Economics at the Massachusetts Institute of Technology, leverages scholarship from 143 affiliated professors to generate and disseminate rigorous evidence about anti-poverty policies. J-PAL NA provides pro-bono technical support, capacity building, and matchmaking with researchers to government agencies and nonprofits seeking to design and implement randomized evaluations, many of which rely extensively on administrative data. Affiliates in our network have conducted 154 ongoing or completed randomized evaluations in North America across sectors such as health care, housing, criminal justice, education, and labor markets. J-PAL NA also creates training materials to build research capacity, including a comprehensive, practical guide to obtaining and using administrative data for randomized evaluations.[1] We appreciate the opportunity to submit comments to the Commission on Evidence-Based Policymaking.

J-PAL affiliated researchers have relied heavily on administrative data to conduct policy-relevant research. Data from IRS tax records enabled an almost 20-year follow-up of families involved in the Moving to Opportunity Experiment. The follow-up study demonstrated that young children who moved to low-poverty neighborhoods increased their college attendance and expected lifetime earnings.[2] Data from the U.S. Department of Education, the Ohio Board of Regents, and the National Student Clearinghouse collectively enabled a randomized controlled trial showing that simplifying the financial aid application process increased college attendance and persistence.[3] Data from hospitals in the Portland area revealed that Medicaid insurance, for which opportunities to apply were allocated through a lottery in Oregon, increased emergency room usage by 40 percent.[4] Access to administrative data was critical to generating these insights.

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[1] Feeney, Laura, Jason Bauman, Julia Chabrier, Geethi Mehra, and Michelle Woodford. "Using Administrative Data for Randomized Evaluations." J-PAL North America. December 2015. https://www.povertyactionlab.org/sites/default/files/documents/AdminDataGuide.pdf

[2] Chetty, Raj, Nathaniel Hendren, and Lawrence F. Katz. "The Effects of Exposure to Better Neighborhoods on Children: New Evidence from the Moving to Opportunity Experiment." NBER Working Paper #21156, May 2015.

[3] Bettinger, Eric P., Bridget Terry Long, Philip Oreopoulos, and Lisa Sanbonmatsu. 2012. "The Role of Application Assistance and Information in College Decisions: Results from the H&R Block Fafsa Experiment." The Quarterly Journal of Economics 127(3):1205-42.

[4] Taubman, Sarah, Heidi Allen, Bill Wright, Katherine Baicker, Amy Finkelstein, and the Oregon Health Study Group. 2014. "Medicaid Increases Emergency Department Use: Evidence from Oregon's Health Insurance Experiment." Science 343(6188):263-8.

Executive Summary

This comment reflects J-PAL's expertise concerning randomized evaluations, administrative data access, and collaboration between government agencies and external researchers. It incorporates recommendations from an open letter penned by several leading economists, including multiple J-PAL affiliates[5], and a short paper published by a subset of the same authors.[6] This comment elaborates on these key recommendations:

- Establish clear data documentation and standard data request forms, building on the example set by the Centers for Medicare and Medicaid Services.
- Expand secure access to real microdata to qualified researchers, prioritizing secure remote connections while also increasing capacity at Census Research Data Centers.
- Develop a data clearinghouse within the Census Bureau for currently hard-to-access data, particularly microdata on earnings and income, and link the data across agencies.
- Avoid flat per-user fees for data access to encourage validation and double-checking of data analysis.
- Clearly articulate program objectives and build ongoing process evaluation into every program to lay the foundation for impact evaluation.
- Institutionalize a process for identifying questions for program evaluation and appropriate conditions for randomized evaluations, focusing on three cases:
  - Demand for a program exceeds capacity to supply the program.
  - Gradual roll out of a program to different individuals or locations over time.
  - Refinement or reconsideration of eligibility criteria for a program.

Responses to Specific Questions

3. Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?

Build on the example of the Centers for Medicare and Medicaid Services to establish clear data documentation and standard data requests.

Existing government data infrastructure should incorporate standard data request forms with clear data dictionaries, using the Centers for Medicare and Medicaid Services (CMS) Research Data Assistance Center (ResDAC) data documentation as a model of best practices. The ResDAC system allows researchers to understand specifically what variables are available and to submit requests with data protection plans. Because the ResDAC system allows CMS to review those requests systematically as opposed to on an ad hoc basis, ResDAC facilitates routine,

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[5] Card, David, Raj Chetty, David Cutler, Steven Davis, Martin Feldstein, William Gale, Jonathan Gruber, Michael Greenstone, Caroline Hoxby, Lawrence Katz, and Emmanuel Saez. 2010. "An Open Letter on Expanding Access to Administrative Data for Research in the United States. https://eml.berkeley.edu/~saez/dataaccess_final.pdf
[6] Card, David, Raj Chetty, Martin S. Feldstein, and Emmanuel Saez. "Expanding access to administrative data for research in the United States." *American Economic Association, Ten Years and Beyond: Economists Answer NSF's Call for Long-Term Research Agendas* (2010). https://eml.berkeley.edu/~saez/card-chetty-feldstein-saezNSF10dataaccess.pdf

secure access to administrative data that culminates in several hundreds of medical studies each year.[7]

Applying the ResDAC model to an administrative data clearinghouse or other data repositories would allow researchers to see exactly what variables they are permitted to request, along with a brief description of each variable, before submitting a request. This explicit listing of available variables would enable data discovery and save program administrators and researchers hours of valuable time by avoiding long correspondences about whether the desired data exist. Publicizing exactly which variables exist and what agency houses the data increases transparency with no risk of revealing personally identifiable information. Better data documentation can thus facilitate use of and access to administrative and survey data without raising concerns for data security and privacy protection.

Moreover, sensitive variables that would trigger additional levels of review or security could be clearly labeled as sensitive as part of this clearer data documentation. Currently, researchers may request a variable that is not central to their analysis, without realizing that it captures sensitive information. This could delay or jeopardize the entire request or allow access to sensitive data that, with clearer data documentation, would not have been requested from the agency.[8]

4. What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation, and analysis purposes?

<u>Expand secure access to microdata to qualified researchers through remote and on-site connections rather than creating synthetic data.</u>

An optimal infrastructure for integrating administrative, survey, and statistical data to facilitate research and evaluation while ensuring data security and privacy will provide secure environments where qualified researchers can directly access microdata. Microdata enable researchers to perform more informative analyses by controlling for individual characteristics (such as educational attainment or race) to better determine the impact of a program. Microdata also allow researchers to evaluate how a program affects specific subpopulations, such as low-income individuals. Researchers can use microdata to validate and adjust their analysis as they learn from the data in real time—a crucial step in the research process. Moreover, for analysis in rigorous randomized evaluations, researchers require microdata to link individuals to their treatment status.

There are currently twenty-four Federal Statistical Research Data Centers (RDCs), which are physical, secure environments established through partnerships between the Census Bureau and research institutions where researchers who have undergone special sworn status can access restricted microdata. However, capacity in these RDCs is limited, both physically and according to Census bandwidth, and access is artificially restricted to researchers based on geographic proximity rather than on the merit of their research proposal.[9] Similar constraints apply to researchers working with statutorily restricted tax data through contracts with the IRS Statistics

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[7] Ibid.
[8] Feeney et al., "Using Administrative Data for Randomized Evaluations," 2015.
[9] Card et al., "Expanding access to administrative data," 2010b.

of Income Division (SOI)—the type of arrangement that enabled the Moving to Opportunity follow-up study. The SOI is small, has a limited budget, and can accommodate few research projects at a time. [10] More secure, direct access to microdata should be provided in two ways: (1) preferably through remote, secure connections such as the "flexiplace" systems used by federal employees who work with restricted data from home, but also (2) through expansion of on-site secure environments in the form of additional space and funding for Research Data Centers and similar centers at other statistical agencies.[11]

Synthetic data, one alternative to expanding remote and on-site secure connections to restricted data, are a far inferior option for enabling policy-relevant research and program evaluation. Synthetic data are constructed to mimic certain features and aggregate characteristics of real data without containing real individual-level information. Although this appears—on its surface—to enable research while protecting privacy, synthetic data suffer severe disadvantages relative to real microdata. Synthetic data may be incompatible with randomized evaluations and other rigorous program evaluations because researchers must be able to link individuals to their treatment status—i.e., whether a particular person received a program or not. Furthermore, synthetic data make it difficult or impossible to study subpopulations, such as low-income individuals, which may be of particular policy interest. Researchers would have to specify each subpopulation they intend to study and all necessary contents of the data in advance. This may be impossible, in part because researchers often revise their analyses to address observations they learn from the raw data.[12] Meanwhile, data administrators would have to create new synthetic datasets for each request to study a specified subpopulation, which would require significant infrastructure and personnel.

7. What data should be included in a potential U.S. government data clearinghouse? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

<u>Establish a data clearinghouse within the Census Bureau for currently hard-to-access data, particularly microdata on earnings and income.</u>

For reasons discussed in response to question 4, the data should be real microdata rather than aggregated, de-identified, synthetic, or perturbed data. The clearinghouse should prioritize data that do not already benefit from strong infrastructure for access. Specifically, a clearinghouse should be developed for federal income and earnings microdata and focus on enabling researchers to link these data to the extent legally possible.

Income and earnings data have less well-developed access infrastructure and face several legal barriers to use for program evaluation, meaning that the clearinghouse would not be redundant.[13] For example, individual states maintain their own data system for Unemployment Insurance (UI)

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[10] Office of Management and Budget, *Barriers to Using Administrative Data for Evidence-Building* (white paper submitted for the Commission on Evidence-Based Policymaking, July 15, 2016). https://www.whitehouse.gov/sites/default/files/omb/mgmt-gpra/barriers_to_using_administrative_data_for_evidence_building.pdf
[11] Card et al., "Expanding access to administrative data," 2010b.
[12] Ibid.
[13] Ibid.

records, with individual discretion and statutory protections on providing access to this data. The Department of Labor does not store the data in a central location. Although the Census Bureau has made a significant contribution to accessing state UI data through the Longitudinal Employer Household Dynamics Program (LEHD), the LEHD program requires that researchers be on-site at a designated Research Data Center.[14]

With infrastructure secure enough for the highly restricted data from UI and tax records established, the clearinghouse should then focus on facilitating linkage of these data with other, less restricted data. Federal data on income, namely tax records or Unemployment Insurance records, are in high demand because income can serve as a key outcome variable for many government programs or policies in education, job training, criminal justice, and place-based interventions.[15] For example, earnings—as measured by tax records—was a key outcome variable in the follow-up study of the Moving to Opportunity Experiment.

8. What factors or strategies should the Commission consider for how a clearinghouse(s) could be self-funded? What successful examples exist for self-financing related to similar purposes?

Avoid flat per-user fees for data access to encourage validation and double-checking of data analysis.

As is customary, a clearinghouse may charge fees for accessing data, such as a fee per project, a fee for sets of users, or an initial fee for the first user followed by much smaller fees for additional users. It should not charge the same flat fee per person for accessing the data because this severely discourages the double checking crucial to correcting human errors. Despite its clear data request process, CMS charges a fixed fee of $25,000 per person who accesses identifiable data through their Virtual Research Data Center.[16] This may create problems because researchers often need multiple people to work with the data to ensure accuracy—including people who effectively proofread to correct for human coding errors. With fixed per-person costs, researchers either pay a large inflexible sum of money for someone to double check the analysis or—facing tradeoffs given limited research funds—forego a set of "fresh eyes" to double check the analysis at risk of making mistakes. Therefore, by creating a high marginal cost to adding additional users, charging a fixed fee per data user effectively institutionalizes mistakes.

18. How can or should program evaluation be incorporated into program designs? What specific examples demonstrate where evaluation has been successfully incorporated in program designs?

Clearly articulate program objectives and build process evaluation into every program to lay the foundation for impact evaluation.

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[14] Ibid.

[15] Office of Management and Budget, *Barriers to Using Administrative Data*, 2016.

[16] Research Data Assistance Center. "Fee List for RIFs: Physical Research Data Requests." Centers for Medicare and Medicaid Services. https://www.resdac.org/sites/resdac.umn.edu/files/CMS%20Price%20List%20for%20Research%20Files_23.pdf Accessed October 31, 2016.

Process evaluation is always needed and constitutes a critical prerequisite for impact evaluation. It is not sensible to ask whether the program is succeeding or failing to deliver outcomes without first knowing whether the program itself is being delivered with fidelity. In some cases, important questions about how a program can or should function may be sufficiently answered by process evaluations, needs assessments, or literature reviews. Rigorous impact evaluation, particularly randomized evaluation, should be pursued when the benefits in terms of knowledge generated would likely outweigh the costs of the evaluation, and when planning during program design can facilitate impact evaluation. [17]

Many components that aid process and impact evaluation should be developed during program design:

- Precisely articulated program objectives.
- A needs assessment clearly articulating the problem that the program will address.
- Standard outcome measures used in research literature about similar programs that allow potential impact evaluation results to be compared to those in other studies and used in cost-effectiveness analyses.
- A plan for data collection and flow from program practitioners to administrators. This includes planning in advance to collect identifying information, such as Medicaid ID numbers, to enable later matching of program-level records to administrative records for impact evaluation.

As an example of incorporating evaluation into program design, Benefits Data Trust (BDT) is working with J-PAL North America in an ongoing randomized evaluation of different outreach strategies to increase enrollment in the Supplemental Nutrition Assistance Program (SNAP) among eligible but unenrolled individuals in Pennsylvania. BDT had a clear grasp of the need its program addressed: despite awareness among eligible households that SNAP exists, many people could not imagine navigating the enrollment process alone. BDT had the clear program objective of increasing benefits enrollment, and change in program enrollment is a standard outcome that could be compared across different studies. BDT and researchers agreed that based on a review of the existing research, there was little rigorous evidence about what interventions can increase SNAP enrollment.

Although BDT was already providing enrollment assistance and sending outreach, BDT worked with researchers to design and test two distinct outreach activities—one high-touch intervention including a letter plus enrollment assistance and one low-touch intervention including a letter only. The researchers also worked with BDT to design a new letter for the evaluation based on marketing and psychology literature. Seeing quickly that this newly designed letter was more effective, BDT plans to incorporate this letter design in other states outside of Pennsylvania. Ultimately, the impact of the different outreach strategies will be measured using administrative data, which can be accessed according to a data use agreement with the Pennsylvania Department of Human Services.

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[17] Glennerster, Rachel, and Kudzai Takavarasha. *Running randomized evaluations: A practical guide*. Princeton University Press, 2013.

19. To what extent should evaluations specifically with either experimental (sometimes referred to as "randomized control trials") or quasi-experimental designs be institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?

<u>Institutionalize a process for developing specific research questions and determining the appropriate conditions for randomized control trials or other evaluation methods.</u>

Federal agencies should institutionalize a process of developing high-priority research questions and determining the most appropriate evaluation methodology, following the precedent set by the Social and Behavioral Sciences Team (SBST). SBST launches demonstration projects—usually in the form of randomized evaluations—to rapidly evaluate low-cost applications of behavioral science to achieve desired outcomes, such as increasing workplace savings plan enrollment among military service members or increasing the rate at which indebted graduates apply for income-based loan repayment plans.[18]

When properly designed and implemented, randomized evaluations rigorously demonstrate the causal impact of a program by establishing the counterfactual—what outcomes would exist for program participants if they had not received the program. Random assignment ensures that, with a large enough sample, the group that receives the program and the group that does not are similar on average before the start of the program. Therefore the impact estimate from a randomized evaluation offers confidence that any differences in outcomes between the two groups are a result of the program. The ability to isolate program impact from self-selection or other confounding factors is why randomized evaluations are widely recognized as a highly credible method for estimating program impact. Where there is little internal experience implementing randomized evaluations, agencies should seek partnerships with external or academic researchers who are vested in similar questions.

Randomized evaluations can only occur when randomization is built into the program design. However, randomization should not be incorporated indiscriminately; rather, randomization should be incorporated into programs to facilitate randomized evaluations where appropriate on three grounds:

- The current evidence for answering the well-defined research question is non-existent, insufficient, or inconclusive.
- There is a clear unit of randomization—individual program participants, schools, clinics, etc.—for which there is a large enough sample size and a clear means of tracking outcomes for both the treatment group and the control group.
- Randomization is feasible and ethical. Although not an exhaustive list, the following conditions offer opportunities where randomization may be feasible and ethical:
  - Demand for a program exceeds capacity to provide the program. A lottery may be a fairer alternative than allocating slots on a first come, first served basis—particularly when a goal of the program is equity of access—and offers an

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[18] Social and Behavioral Sciences Team. *2016 Annual Report*. Executive Office of the President, National Science and Technology Council. September 15, 2016. https://sbst.gov/assets/files/2016%20SBST%20Annual%20Report.pdf

              alternative to imposing increasingly narrow eligibility criteria under funding
              constraints.

- o A program is being expanded by gradually offering it to individuals, schools, or districts until full coverage is reached. A lottery can be used to randomly assign the order in which individuals or units receive the program. The individuals or units that have not yet received the program serve as the control group until all units receive the program.
- o A new intervention—such as a financial incentive or care coordination services— will be added to an existing program. Program participants can be randomized to receive different versions of the program, e.g., with or without the added intervention, to isolate the impact of the new intervention.
- o Program eligibility criteria are being refined or reconsidered. People just above/below the eligibility cutoff can be randomly assigned to receive or not receive the program to determine whether it is effective for this marginal group. Meanwhile, those well within the program eligibility cutoff, automatically receive the program, and those well outside the cutoff do not qualify for the program.

As a specific example of institutionalizing a randomized evaluation, the South Carolina Department of Health and Human Services is partnering with J-PAL North America to incorporate a randomized evaluation in its expansion of a nurse home-visiting program for low-income mothers delivered by the nonprofit organization Nurse-Family Partnership (NFP). The specific, high-priority research question is whether a new, less expensive version of the NFP program that South Carolina is expanding will be as effective as the pre-existing version that has been rigorously evaluated before.

A randomized evaluation was found to be an appropriate method for answering this question given excess demand for the program. Although South Carolina is expanding this less expensive version of NFP to thousands of mothers through an innovative pay-for-success initiative, the program does not have sufficient resources to serve all of the women who are eligible. Applicants will be randomly assigned, on a rolling basis from 2016 to 2020, to either a treatment group that is offered access to the program, or to a control group that is not.[19] We will assess the effect of NFP on a range of short- and long-run maternal and child outcomes using administrative data that will be available for all members of both treatment and control groups. This will yield useful evidence for South Carolina and for policy makers nationally, who are interested in the broader health and financial consequences of expanding Medicaid to include similar services.

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[19] The Abdul Latif Jameel Poverty Action Lab. "The Impact of a Nurse Home Visiting Program on Maternal and Child Health Outcomes in the United States." Accessed October 24, 2016.   https://www.povertyactionlab.org/evaluation/impact-nurse-home-visiting-program-maternal-and-child-health-outcomes-united-states

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0168
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

Our family has openly, reasonably protested expansive, invasive national student data collection since 2005 by opting our students out of internet use at school. Our local agency (School District) retaliated against our students and family due to our protests, (non-conformance) regarding internet use. We reported the District's informal policies of retaliation and more retaliation followed.

We do not believe that students are obligated to provide data in exchange for their Uniform, Safe, Secure, Efficient and High Quality public education. In fact, we believe internet use at school and the accompanying data collection makes them unsafe. We strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.

In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors but also their families and friends.

The US Department of Education has been found to have especially weak security standards in its collection and storage of student data, and received a grade of D for its security protections.

In addition, preK-12 student data currently collected by state departments of education that would potentially be shared with the federal government include upwards of 700 highly sensitive personal data elements, including students' immigrant status, disabilities, disciplinary records, and homelessness data.

We are also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from PreK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

We urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0169
Comment on FR Doc # 2016-22002

Submitter Information

Name: Chad Green
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   Leesburg, VA, 20175
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General Comment

Today's societal demands require a fundamental structural shift from bureaucratic government to networked governance, so how can these "successful frameworks, policies, practices, and methods" facilitate the process?

For example, see:

Society Is Too Complicated to Have a President, Complex Mathematics Suggest
http://motherboard.vice.com/read/society-is-too-complicated-to-have-a-president-complex-mathematics-suggest

and:

From "Government" to "Governance" in Public Administration: Differences, Concepts and Theories
http://patheory.net/docs/2016ConferenceDocs/Qi_H.pdf

Best,
Chad

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0170
Comment on FR Doc # 2016-22002

Submitter Information

Name: Mary Jo Hoeksema
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Email: maryjo@popassoc.org

General Comment

See attached.

Attachments

PAA APC comments to Evidence Based Policy Commission Final

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Association of Population Centers

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November 14, 2016

Commission on Evidence-Based Policymaking
Comments: Docket ID USBC-2016-0003

To whom it may concern:

On behalf of the Population Association of America (PAA) and the Association of Population Centers (APC), we are pleased to respond to the Request for Comments for the Commission on Evidence-Based Policymaking.

The PAA and APC are two affiliated organizations that together represent over 3,000 social and behavioral scientists, including demographers, economists, and sociologists, and the approximately 40 federally-supported population research centers nationwide. PAA and APC members conduct interdisciplinary scientific research and research training to further understanding about the implications of population change.

Many PAA members and affiliates of APC members are engaged in research that informs policy decision making and our understanding of the impacts of public policy on both the U.S. population and populations worldwide. Our members' research is decidedly evidence-based, making use of the best data sources, including those collected by the U.S. statistical agencies and those from other countries and international organizations. The PAA maintains a standing Committee on Population Statistics whose purpose is to continually monitor and provide input to U.S. statistical agencies on the quality of data collected by these agencies and their availability to the research community. Furthermore, many of our members have been at the forefront of developing statistical methods that are used to evaluate public policy questions in such areas as population health, fertility and mortality, and other demographic, social

1

and economic outcomes central to so many policy issues.

PAA and APC applaud passage of the Evidence-Based Policymaking
Commission Act of 2016, which created the bipartisan Commission on
Evidence-Based Policymaking and charged this Commission with:

- determining how to integrate administrative and survey data and to
  make those data available to facilitate research, evaluation, analysis,
  and continuous improvement while protecting privacy and
  confidentiality;
- recommending how data infrastructure, database security, and statistical
  protocols should be modified to best fulfill the integration and
  increased availability of data as described above;
- recommending how best to incorporate rigorous evaluation into
  program design; and,
- considering whether a federal clearinghouse should be created for
  government survey and administrative data.

We are pleased to continue supporting the Commission by responding to
the recent request for comments published in the Federal Register on
September 14. Our responses address questions (#3-7, 9, and 10) in the
notice dealing with data infrastructure and access-- two issues that are
central to the missions of both of our organizations and to the population
sciences. Further, some of our comments are outside the scope of the
questions, reflecting issues that our organizations hope the Commission
will consider.

Comments: Data Infrastructure and Access

A. There are important benefits to use of administrative data, especially
when linked, for conducting policy-relevant research. Administrative
records have been used in a variety of research areas and provide an
essential source of data for conducting important policy-relevant research.
For example, such records have been used to study participation in and
impacts of social programs (e.g., welfare programs, manpower training,
food stamps, the earned income tax credit, etc.) on various outcomes. Often
these outcomes are measured with linked administrative data, such as wage
earnings (from linked unemployment insurance wage records), health
conditions (from linked Medicaid records) or fertility (from linked birth
certificate records). The availability of administrative records from federal,
state or local sources provide a cost-effective way of supporting
evaluations of these programs, regardless of whether the evaluations made

use of randomized designs for allocation of program participants to different "treatments," or other studies that have made use of non-experimental designs.

But social program evaluation is not the only place where administrative records can and will be the primary source of data to monitor particular programs and/or evaluate particular policies or "treatments." Furthermore, they do not only use government records. Here we reference two examples. First, biomedical research, including research that is relevant to policies affecting health-related behaviors, such as smoking bans or regulation of the nutritional content of foods, uses increasingly electronic health records (EHRs) from public and private health care systems to measure the health effects of variation in such policies. Second, administrative records from private firms that construct credit scores for use by financial institutions have been used by researchers, including the research division of the New York Federal Reserve Bank, to monitor and conduct policy-relevant research on student loan debt in the U.S. In both of these areas, administrative records support important policy-relevant research in a way that is both cost-effective and potentially more accurate than data collected via other means, e.g. surveys.

B   At the same time, there are important legal and other constraints that limit the use of administrative records and the ability of researchers to link records from different administrative sources. In particular, different sources of administrative data are subject to varying and divergent laws and regulations that can inhibit their use. For example, administrative records from social programs administered at the state or local level (e.g., TANF programs) are often subject to laws and regulations that make it hard for one agency to share their records with another agency. And, as noted in the NRC report on the Reengineering of the Survey of Income and Program Participation (SIPP), existing state laws that cover the privacy and access of administrative records from TANF, Medicaid, unemployment insurance, and the workers' compensation programs make it very difficult, if not impossible, for these programs to share their data with the Census Bureau (or other) surveys like the SIPP.[1]

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[1] Constance Citro and John Karl Scholz, eds., *Reengineering the Survey of Income and Program Participation*, National Research Council, 2009.

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Historically, this issue has complicated the conduct of biomedical research that makes use of electronic (or non-electronic) health care records of individuals as institutional review boards (IRBs) have required studies to obtain informed consent from subjects in these studies for any follow-up use of subjects' EHRs and/or updating of these records. Recently proposed revisions to the Common Rule[2] will reduce and/or eliminate this re-consenting requirement for certain types of studies and types of administrative records so long as subjects are provided with a clear statement regarding potential future use of administrative records as part of their initial consent process. Many population scientists welcome this change and suggest it may represent a model for the Commission to examine as it considers how to facilitate access to records like EHRs while still providing participants with the opportunity to make informed decisions about research access to their records.

More generally, we strongly urge the Commission to investigate the various laws and regulations governing access to administrative records for research purposes. In particular, we urge the Commission to look closely at the laws affecting access to state and local government data and policies restricting record linkage across various federal agencies.

C. To facilitate the conduct of evidence-based, policy-relevant research, we urge the Commission to examine and improve access to administrative records to qualified researchers outside and inside the government. We understand and appreciate that there are important confidentiality and security concerns that necessarily limit access of researchers to various types of government-based administrative records and/or restricted-use data sources. Furthermore, we appreciate why restrictions on the access of non-governmental researchers may need to be different, and possibly more restrictive, than that applied to researchers employed by authorized government agencies. But, at times, these restrictions have made access to such data very difficult for academic and non-governmental researchers.

Over the last 20 years, U.S. statistical agencies, initially led by the U.S. Census Bureau, have made great strides in improving access to restricted-use versions of federal data sources through the Federal Statistical

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[2] HHS–OPHS–2015–008, Federal Policy for the Protection of Human Subjects, *Federal Register*, 80(173), Sept 8, 2015, 53933-54058.

Research Data Centers (RDCs) program. This program now allows access to data products from 12 different federal statistical agencies for qualified governmental and non-governmental researchers in 20 different centers around the country. While some the research covered by the data agreements approved for use of these centers is often not directly related to policymaking, much of it is.

A similar effort for providing access to data from the Internal Revenue Service (IRS) under the Joint Statistical Program of the Statistics of Income (SOI) Division of the IRS has enabled qualified researchers to submit proposals for access to IRS data and to link it to various data for research purposes. This program has facilitated a number of highly visible and widely cited lines of research by Professors Raj Chetty (Stanford) and Emmanuel Saez (UC Berkeley). For example, Chetty and co-authors analyzed the association between income and the life expectancy of individuals in the U.S. since 2000 by linking IRS tax records on income with Social Security Administration death records.[3] The findings of this research, especially the finding of differences by area in the associations of longevity by income, raises important questions about the sources of these disparities and how to alleviate these differences. Such research could not have been conducted without this program.

A large body of research shows that geography (e.g. neighborhoods) affects the social and economic well-being and health of individuals and families. But, state and local policymakers, researchers, and program officials often lack the data needed to measure differences in community environments, to isolate how neighborhood characteristics shape micro-level outcomes, or to test the efficacy of neighborhood-level interventions. Most survey data files lack such key contextual information, while most administrative data lack key demographic, socioeconomic, behavioral, and outcome information. While individual-level record linkage of survey and administrative data could provide such critical data for state and local-level evidence-based policymaking, most state and local researchers/program evaluators lack the resources to submit proposals and conduct these types of linkages and research within a RDC. The Commission should also encourage statistical

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[3] Chetty, R. et al. (2016). "The Association between Income and Life Expectancy in the United States, 2001-2014, *Journal of the American Medical Association*, 315(15): 1750-1766.

agencies and other researchers to create spatially-linked administrative and survey data that could be provided to state and local researchers/program evaluators outside of RDCs to increase evidence-based policymaking at the state and local level.

We urge the Commission to encourage expanding access of data and records from federal, state and local sources to qualified non-governmental and governmental researchers. This expansion should include state and local government researchers, whose access to data can provide support for accurately assessing needs, creating programs to address those needs, and delivering services in more cost-effective ways. While such efforts may include expanding the RDC and/or IRS's Joint Statistical Programs or similar programs, they should also include expanding access to spatially-linked administrative and survey data that could be provided outside of RDCs. Efforts also may include providing more funding for merit-based grants to undertake these projects, especially in light of the limited resources available to researchers in local governments and those working in non-governmental settings.

We also urge the Commission to consider recommending any necessary legal revisions that would allow federal statistical agencies to share data with researchers conducting evidence based research. For example, the Census Bureau's authorizing regulation, Title 13, does not explicitly recognize the use of sensitive data for conducting scientific research, be it policy-relevant or not, as a "benefit to the Bureau." Rather, Title 13 only supports data access to improve the quality of Census (and other) data products. A more explicit acknowledgment that qualified research projects can be conducted for scientific purposes would allow Census to approve studies using confidential data that are primarily designed to replicate existing studies and/or determine the robustness of findings from previous research. Such changes would help ensure the legitimacy of research uses of these data and give greater credibility to the findings based upon these data.

D. We encourage greater attention be given to the population representativeness of the policy-relevant research produced using administrative records and population-based surveys to better assess and characterize the population-representativeness of findings from administrative data. Many studies use administrative records to "evaluate" the impact of some particular policy or program. As we have argued above, the administrative records provide a potentially cost-effective way of conducting such evaluations—particularly when compared to the

alternative of collecting survey data that is collected from a sample representative of the population relevant for the study. However, such benefits of using administrative records in evaluative research does not mitigate the importance of assessing the sampling properties of this data source.

Consider the following example regarding the design of the Precision Medicine Initiative (PMI). One of the key components of the PMI's initial plan is to assemble a million-person sample of individuals who would provide access to their Electronic Health Records (EHRs) as a condition of the study. Access to EHRs on this large sample would provide data to study a wide range of health conditions, including conditions that are relatively rare and only affect population subgroups. One of the study's recruitment strategies was to use social media and other methods to attract participants who would grant access to their EHRs and undergo one or more physical examinations.

While the goals of the PMI are important and have the potential to provide evidence-based assessments of health conditions relevant for U.S. health policy, as population scientists, we are concerned about lack of attention to the properties of what amounts to a "volunteer" sample of people with EHRs, even if the sample includes data on one million participants. In public comments, PAA and APC raised these concerns and strongly suggested that the NIH leadership consider using existing population-based health studies to form at least part of the PMI cohort to assess the population-representativeness of the recruitment strategy based on volunteers. In developing both policies and best practices for policy-relevant research, we urge the Commission to advocate for the designs of data collection that explicitly account for the sampling properties and population-representativeness of its studies.

Lastly, we encourage the Commission to ensure that population-representative data sources collected by the Federal government continue to be viewed as an important source of data for policy-relevant research, both as a way to monitor behaviors and phenomena relevant to public policy. For example, data sources like the Current Population Survey (CPS), the American Community Survey (ACS) and the Survey of Income and Program Participation (SIPP) all play roles in the monitoring and implementing public policy in the U.S. The CPS is the population-representative data that enables the BLS to construct estimates of unemployment and labor force participation rates of the U.S. population on a monthly basis. The ACS provides data on poverty rates at the lowest

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levels of geography, such as school districts and communities, which are used to allocate funding for programs such as the USDA's National School Lunch Program and State Children's Health Insurance Program (SCHIP). The SIPP has facilitated a broad range of research on the distribution of income and participation in a range of social programs using a survey that is designed to be population representative for most states in the U.S. These surveys, and others, are important components of the U.S. data infrastructure and are needed to support evidence-based policymaking.

Thank you for considering our comments and for the important work of the Commission. Please do not hesitate to contact the Director of Government and Public Affairs, Mary Jo Hoeksema (maryjo@popassoc.org), if our organizations can be of further assistance.

Sincerely,

Judith A. Seltzer
President, Population Association of America

Lisa Berkman
President, Association of Population Centers

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0171
Comment on FR Doc # 2016-22002

Submitter Information

Name: Florida Parent

General Comment

In the interest of our Children's Constitutional Rights we must stop Common Core. The schools need to be managed and controlled at the local level, overseen by the state. It is completely against everything our Founding Fathers had in mind when they organized this country. Common Core is Communism - it does not belong in the USA - it is ANTI-AMERICAN. STOP Common Core NOW!!!

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0172
Comment on FR Doc # 2016-22002

Submitter Information

Name: Timothy Law

General Comment

I am against the ever increasing thirst for data on the population in general. I am particularly against that information on our children. That belongs in the local school, not in a national database.

If you need information to make decisions, then take a sample data study. You don't need ever intrusive data on every child or every person. In the end, that becomes a way around the 5th Amendment.

Timothy Law
Minnetonka, MN

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0173
Comment on FR Doc # 2016-22002

Submitter Information

Name: James Poulsen

General Comment

Common Core is big government fools brainwashing every chiold in America as they have since 1965 only now they will add Marxism to the curricula.Schools should be a state and local issue nothing should be big government it all ends up l;ike Detroit or Baltimore.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0174
Comment on FR Doc # 2016-22002

Submitter Information

Name: Chris Adams

General Comment

I find it deplorable that what was supposed to be an accountability registry has grown to encompass a cradle to grave
" Human Capital". tracking system. This needs to be stopped.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0175
Comment on FR Doc # 2016-22002

Submitter Information

Name: Aaron Hsu

General Comment

I strongly oppose measures by the government to perform long term tracking of individuals, whether for the benefit of society or not.

We must strongly resist the urge to collect and acquire such data.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0176
Comment on FR Doc # 2016-22002

Submitter Information

Name: Cheryl Pedone

General Comment

We believe that student privacy and parental consent should always be considered pre-eminent compared to the research
desires of the government or private sector, especially in the realm of psychological profiling.

The government has no constitutional, statutory, or moral right to collect data, especially highly personal and sensitive
socioemotional data on our children.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0177
Comment on FR Doc # 2016-22002

Submitter Information

Name: Frank Caprio

General Comment

I am against against the efforts to establish a federal "unit record" database. The idea that the government should track children from their preschool years throughout their academic life is a repulsive one. The Department of Education is an unconstitutional entity. We need to eliminate it not give it a bigger agenda. Our 4th Amendment protected rights to be secure in our "person, houses. papers, and effects" is also at stake here. There is no proper reason for the government to collect this data. The prohibition that exists is there for a good reason and needs to stay in force. As a matter of fact, ALL of Common Core should be eliminated.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0178
Comment on FR Doc # 2016-22002

Submitter Information

Name: Sharon Kraus

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,
Sharon Kraus

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0179
Comment on FR Doc # 2016-22002

Submitter Information

Name: Suzanne Lanier Philips

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,

Suzanne Lanier Philips, Florida

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0180
Comment on FR Doc # 2016-22002

Submitter Information

Name: Heather Aaron

General Comment

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700

highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,
Heather Aaron
New Jersey

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0181
Comment on FR Doc # 2016-22002

Submitter Information

Name: Tawnie Cisneros

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,
Tawnie Cisneros, Illinois

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0182
Comment on FR Doc # 2016-22002

Submitter Information

Name: Tanya Pollard

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,
Tanya Pollard, Brooklyn College, CUNY, New York, NY

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0183
Comment on FR Doc # 2016-22002

Submitter Information

Name: Adam Trowbridge

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,
Adam Trowbridge

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0184
Comment on FR Doc # 2016-22002

Submitter Information

Name: Susan Gold
Address:
  Malta, NY, 12020

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security

standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0185
Comment on FR Doc # 2016-22002

Submitter Information

Name: Wendy V

General Comment

I am writing to ask you to oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

I, along with several members of my family, have been involved in technical areas touching on issues of privacy and security for many years. I have worked for over 11 years in web design / development and have spent MUCH of that time educating clients on safety, security, and privacy of client information. My father worked for over 34 years at IBM, much of which was in security. He's currently the administrator of a new college specifically training in cybersecurity. Risks to information held in a federal database are real, not imaginary... think "when" not "if" a breach would happen. I realize we don't live in the 1950s anymore, but the US Department of Education recently received a grade of "D" for its security protections. I do not believe we have the *right* to make this decision regarding the next generation of adults' information.

This information, which would and could include upwards of 700 highly sensitive elements, includes information such as students' immigrant status, disabilities, disciplinary records, and homelessness. Aside from the threat of security breach, I STRONGLY disagree with this information being collected on private citizens.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0186
Comment on FR Doc # 2016-22002

Submitter Information

Name: C. Michael Barton
Address:
Tempe, AZ, 85287
Email: michael.barton@asu.edu

General Comment

CLEARINGHOUSE FOR INTEGRATIVE HUMAN ANALYTICS AND DATA SYNTHESIS --
As a growing community of scientists who study human social and behavioral systems (listed in attached document), we strongly support the goals of this commission to make more effective use of rapidly expanding administrative and survey data, to strengthen evidence-building to inform program and policy design and implementation. We strongly endorse a principle of open access to all federal data, with exceptions only for sensitive data sets as mandated by law, where privacy and/or national security are at issue. Where these exceptions occur, we propose development of methods that maintain privacy but still allow their use for public policy making and program development. To support these goals and improve efficiency in our use of scarce government resources, we envision a national clearinghouse for integrative Human Analytics and Data Synthesis (iHADS) to:

1) Increase the value of government data by facilitating access to and use of administrative and survey data from multiple sources;

2) Promote community-wide standards and best practices for data management and access to reduce administrative costs and create incentive for data sharing across agencies;

3) Harmonize diverse data definitions and formats to allow analytical syntheses across information from multiple sources;

4) Develop cyberinfrastructure and security to enable next generation analytics, synthesis, and modeling that enables evidence-based policy making;

5) Provide an environment that enables exemplary research that uses government data to support evidence-based policymaking to benefit the American public;

6) Negotiate legal agreements between data managers and credentialed users to lower regulatory barriers to proper data use while ensuring their safety;

7) Protect private, confidential, and identifiable information, when needed, through standards-based credentialing of qualified users and differential privacy safeguards matched with user credentials and analyze the risks associated with the release of that information to the credentialed user.

A national iHADS clearinghouse will make the current dispersed enterprise more effective and generate significant cost savings for agencies that must manage data, identify qualified users of data, and provide data to those users while protecting sensitive information. It could also offer significant cost savings to potential users by reducing administrative and regulatory barriers, improving data discoverability, and facilitating linkage across multiple datasets. The latter is especially important for increasing the return on investment to the American public that has already paid with their tax dollars for the collection and management of the information in federal databases, and has earned the opportunity to derive multiple benefits from these data.

Even sensitive data are powerful engines of innovation and economic value when appropriately curated. The proposed clearinghouse promotes innovative applications of data for diverse purposes across the private and public sectors and for scientific research that can contribute to policy-making. The creation of new cyberinfrastructure to facilitate the use and synthesis of diverse data sources about human systems--including federal administrative and survey data--has the potential for important benefits beyond better policy-making, including facilitating personalized health care, targeting economic development goals, and accelerating innovation. Because human decisions and actions are major drivers of many changes in Earth system today, next generation science of human systems, supported by advanced data synthesis and analytics can offer new insights into natural systems that can impact human life and well-being. We recommend that the Commission consider a study by an independent scientific organization as a guide for possible organization and implementation of such a national clearinghouse.

In the attached document, we list the 37 contributors to these comments and their affiliations, provide an overview of our response, and respond in detail to the Questions for Response #1-17, posed by the Commission.

Attachments

CommentsforCEBPNov2016

CLEARINGHOUSE FOR INTEGRATIVE HUMAN ANALYTICS AND DATA SYNTHESIS (iHADS)

Comments to Commission on Evidence-Based Policymaking

Contributors

Marina Alberti: Department of Urban Design and Planning; Director, Urban Ecology Research Laboratory; University of Washington

Lilian Na'ia Alessa: Director, The Center for Resilient Communities, University of Alaska and President's Professor, College of Art and Architecture, University of Idaho; Program Lead, Department of Homeland Security Center of Excellence, the Arctic Domain Awareness Center (ADAC), University of Alaska

Rob Axtell: Department of Computational Social Science, George Mason University

Steven Bankes: Independent consultant

Michael Barton: School of Human Evolution and Social Change, and Director, Center for Social Dynamics and Complexity, Arizona State University. Director Network for Computational Modeling in Social and Ecological Sciences

Dave Bennett: Geographical and Sustainability Sciences, University of Iowa

Luís Bettencourt: Santa Fe Institute

Eduardo Brondizio: Department of Anthropology; Director, Center for the Analysis of Social-Ecological Landscapes, Indiana University

Daniel Brown: Interim Dean, School of Natural Resources and Environment; Director, Environmental Spatial Analysis Laboratory; University of Michigan

Lawrence Buja: Director, Climate Science & Applications Program, Research Applications Laboratory, National Center for Atmospheric Research

Giovanni Luca Ciampaglia: Research Scientist, Network Science Institute, Indiana University Bloomington

Emily CoBabe-Amman: Climate Strategies Group

Jessica Faul: Survey Research Center, Institute for Social Research, University of Michigan

Johannes Feddema: Department of Geography, University of Victoria, Canada

Peter Fox: World Constellation Chair, Earth and Environmental Science, Computer Science, Rensselaer Polytechnic Institute

Kathleen Galvin: Department of Anthropology and Natural Resource Ecology Laboratory, Colorado State University

Daniel Gaylin: President, NORC, University of Chicago

Robert Groves: Department of Mathematics and Statistics, Department of Sociology, Georgetown University

Ed Hackett: Vice Provost for Research Professor, Heller School of Social Policy and Management, Brandeis University

Sandra Hofferth: Maryland Population Research Center,University of Maryland; Co-Director, Social Observatory Coordinating Network

James S. Jackson: Department of Psychology; School of Public Health; Institute for Social Research,

Yushim Kim: School of Public Affairs, Arizona State University

David Lam: Department of Economics, and Director, Institute for Social Research, University of Michigan

Felicia LeClere: NORC Health Care Department, University of Chicago

Sander van der Leeuw: School of Human Evolution and Social Change and School of
Sustainability; Director, ASU/SFI Center for Biosocial Complexity; Arizona State University;
External Faculty, Santa Fe Institute

Marc Levy: Deputy Director, Center for International Earth Science Information Network,
Columbia University

Jianguo Liu: Department of Fisheries and Wildlife; Director, Center for Systems Integration and
Sustainability; Michigan State University; Director, Coupled Human and Natural Systems
Network

Patricia Mabry: Executive Director, Network Science Institute, Indiana University Bloomington

Emilio Moran: Center for Global Change and Earth Observation, Department of Geography,
Michigan State University; Co-Director, Social Observatory Coordinating Network

Gerald C. Nelson: Department of Agricultural and Consumer Economics, University of Illinois,
Urbana-Champaign

Kenneth Prewitt: Carnegie Professor and Director, Scholarly Knowledge Project, Columbia
University

William Rand: Poole College of Management and Director Emeritus, Center for Complexity in
Business, North Carolina State University

Dan Rogers: National Museum of Natural History, Smithsonian Institution

Patricia Romero-Lankao: Climate Science & Applications Program, Research Applications
Laboratory, National Center for Atmospheric Research

Katherine Smith Evans: Executive Director, Council of Professional Associations on Federal
Statistics

James Syvitski: Institute of Arctic and Alpine Research, University of Colorado, Boulder;
Director, Community Surface Dynamics Modeling System; Chair, International Geosphere-
Biosphere Programme

Billy Turner II: School of Geographical Sciences and Urban Planning, Arizona State University

Shaowen Wang: Department of Geography and Geographic Information Science; Director,
CyberGIS Project; University of Illinois, Urbana-Champaign

Overview

Comprehensive, reliable information has always been a key factor for generating effective
public policy, and governments long have endeavored to collect data to inform information
generation to help them carry out this fundamental responsibility. In the 21st century, the size and
diversity of the United States population, the magnitude and changing structure of its economy,
the range of interactions with the rest of the globe and the complexity of its economic and social
institutions make it all the more imperative that information from accurate, intelligible,
representative data be readily accessible to policy makers to ensure that enacted policies will
have desired results.

We want to distinguish between two categories of federal data: data gathered as part of
administrative actions and surveys whose release would impinge on privacy of individuals and
national security, and all other data. We strongly endorse a principle of open, unfettered access to
all federal data, including those that are not sensitive and those aggregated from sensitive data.
Our answers to committee questions below focus on how to derive useful insights from sensitive
and non-sensitive federal data while addressing privacy and/or national security concerns. Even

sensitive data can be powerful engines of innovation, insights for public policy making and economic value when appropriately curated. The American public has already paid with their tax dollars for the collection of the information in federal databases, and they should be able to derive multiple benefits from these data.

The sheer quantity of data compiled by the federal government alone is growing rapidly, the private sector is compiling much larger databases from sources like consumer purchases and healthcare decisions, and millions of American citizens are recording details of their personal lives and thoughts through social media. Data formats continue to proliferate as legacy data are retained and new information protocols are developed; local and regional sensor networks are expanding, autonomously collecting information daily on environmental conditions and human conditions and actions.

As numerous recent reports and publications have noted that we urgently need to restructure how we manage and use this cascade of data--to craft better policies, stimulate innovation and economic growth, improve security, and mitigate the impacts of natural disasters, while at the same time ensuring individual privacy and freedoms. Because so much of these data are now in digital form and resides on a global network of servers, it will require new information processing and data curation tools to provide access to and syntheses of these data, new organizations to build and manage this cyberinfrastructure for data, new social institutions to develop and promote common standards and best practices, and new approaches to converting these data into policy- and program-relevant insights.

This commission cannot hope to solve all of the many issues surrounding the range of data from all sources, and address the potential benefits and concerns for its use. However, data gathered and compiled by federal, state, and local agencies are central to policy making, and could be managed in more effective and secure ways. Unsurprisingly, much of the administrative and survey data collected by these agencies is of the actions of people in public and private life and their social, economic, and health conditions. We represent a growing community of scientists who study human social and behavioral systems. We strongly support the goals of this commission to make more effective use of administrative and survey data to "strengthen evidence-building to inform program and policy design and implementation". Integrative access to diverse government data combined with next generation analytics can lead to a better understanding the complex dynamics of our social world. To enable these goals in an efficient manner, we envision a national clearinghouse for *integrative Human Analytics and Data Synthesis* (**iHADS**) to:

- Increase the value of government data by facilitating access to and use of administrative and survey data from multiple sources;

- Promote community-wide standards and best practices for data management and access to reduce administrative costs and create incentive for data sharing across agencies;

- Harmonize diverse data definitions and formats to allow analytical syntheses across information from multiple sources;

- Develop cyberinfrastructure and security to enable next generation analytics, synthesis, and modeling that enables evidence-based policy making;

- Provide an environment that enables exemplary research that uses government data to support evidence-based policymaking to benefit the American public;

- Negotiate legal agreements between data managers and credentialed users to lower regulatory barriers to proper data use while ensuring their safety;

- Protect private, confidential, and identifiable information, when needed, through standards-based credentialing of qualified users and differential privacy safeguards matched with user credentials and analyze the risks associated with the release of that information to the credentialed user.

A national **iHADS** clearinghouse will make the current dispersed enterprise more effective and generate significant cost savings for agencies that must manage data (including sensitive data), identify qualified users of data, and provide data to those users while protecting sensitive information. It could also offer significant cost savings to potential users by reducing administrative and regulatory barriers, improving data discoverability, and facilitating linkage across multiple datasets. Data are the most powerful engines of innovation and economic value when they are transparently available and openly accessible. Transparency promotes innovative applications of data for diverse purposes across the private and public sectors and for scientific research that can contribute to policy-making. Facilitating access to and use of such data also increases the return on investment to the American public that has already paid with their tax dollars for the collection and management of the information in federal databases, improving their opportunity to derive multiple benefits from these data.

The creation of new cyberinfrastructure to facilitate the use and synthesis of diverse data sources about human systems--including federal administrative and survey data--has the potential for important benefits beyond better policy-making, including personalized health care, targeted economic development, and accelerating innovation. Because human decisions and actions are major drivers in many of earth's biophysical systems today, next generation science of human systems, supported by advanced data synthesis and analytics can offer new insights into 'natural' systems that can impact human life and well-being. As specifically noted in our response to Question #6, below, we recommend that the Commission consider a study by an independent scientific organization as a guide for possible organization and implementation of such a national clearinghouse.

Below, we respond to the Questions for Response #1-17, posed by the Commission.

Overarching Questions

1. Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

The US is a world leader in making key government-collected data freely available, with significant benefits to business, science, and the general public; many of which are available through the central *Data.gov* website. A few examples of individual federal data sources that provide a broadly useful public good, and facilitate science and evidence-based policy making include: national income accounts data (http://www.bea.gov/national/Index.htm), the Center for Disease Control and Prevention *WONDER Database* (https://wonder.cdc.gov) and *National Center for Health Statistics* (https://www.cdc.gov/nchs/), *EarthExplorer* of the US Geological Survey (http://earthexplorer.usgs.gov), national agricultural statistics (https://www.nass.usda.gov), *Data Tools* of the US Census (http://www.census.gov/data.html), multiple databases of the Bureau of Labor Statistics (http://www.bls.gov/data/), and *Envirofacts* (https://www3.epa.gov/enviro/) and *Developer Central* (https://developer.epa.gov/category/data/) databases of the Environmental Protection Agency. State and local level examples include the *EnviroStor* database of California (https://www.envirostor.dtsc.ca.gov/public/), and the New York City *Open Data Dashboard* (https://nycopendata.socrata.com/stories/s/es39-eesr).

However, to fully benefit from the many data sources we have, it is necessary to be able to integrate data and make links across different datasets. For example, two types of linkages are particularly important for connecting across administrative and survey databases: 1) linking individual demographic data drawn from a survey with administrative data, and 2) linking individual and administrative information to geographic locations. An example of a successful linkage across government agencies is the Health and Retirement Study (http://hrsonline.isr.umich.edu). With respondent consent, individual data are linked to CMS (Centers for Medicare and Medicaid Services), NDI (National Death Index), and SSA (Social Security Administration) data. Although an invaluable resource for successful policymaking for the rapidly growing population of seniors in the US, the kinds of data linkages that make the Health and Retirement Study possible are very difficult to overcome by individual researchers due to the need to negotiate data access separately with each administrative entity, the need to identify and reformat potential linking fields so that the databases can 'talk with each other', and the need to remove IDs from any linkages to protect individual privacy.

A successful example of the second type of linkage (i.e., to geographic locations) is seen in research by the University of Chicago's Urban Center for Computation and Data and Chapin Hall, a research and policy center focused on a mission of improving the well-being of children, families, and their communities. These groups have negotiated agreements across different governmental agencies within the city of Chicago to link administrative and survey data with

information on places people live. One use of these data is to identify geographic areas where resources can be targeted to improve family well-being and reduce dependence on public services. This type of use does not require linkage to individual information, thus having much lower risk of disclosure. Many data sets lack links to individual demographic data on individuals but contain geographic identifiers on the location of the individuals--if they can be linked with other datasets, regulatory barriers to use can be overcome, and different ways of representing geographic location can be translated (e.g., latitude/longitude vs. street addresses).

Recent advances in cyberinfrastructure offer the potential to link federal, state, local, and private sector data in new ways for information syntheses that can significantly multiply the current broad benefits of public access to publicly funded information sources. However, there are significant administrative, regulatory, and technical barriers to doing so that greatly limit the ability of most researchers to accomplish this. And these barriers are multiplied by the need to anonymize potentially identifiable information and simple discoverability of relevant datasets among the multitude of sources. For these reasons, we suggest a national clearinghouse for *integrative Human Analytics and Data Synthesis* (**iHADS)** to facilitate the discovery of relevant data, negotiate access to multiple databases, credential potential users, manage security and privacy concerns in a unified way, and create cybertools to facilitate translation and linkages across different ways of representing information (e.g., location). In addition, it could advise on improvements in data collection techniques and statistical practices, review and suggest best practices for transforming data into information, undertake cost-benefit assessment of the public goods created, and point out inappropriate uses of data because of sampling methodologies used.

2. Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?

The great diversity in management practices, protocols for access, and implementation of security protocols across the many federal agencies that hold data raises concerns for the security and privacy of administrative and survey data. A set of commonly and equitably applied *standards to vet and credential qualified institutions and users* would be an important step in improving security and reducing administrative load on individual data managers across the federal system. Such common credentialing would also help identify which institutions and users are qualified to have what level of access to what kind of data.

Likewise, a *common set of data access portals* to federal administrative and survey datasets, physically housed in multiple agencies, would facilitate implementing state of the art authentication with cost savings to individual agencies while improving access by qualified researchers.

In some cases, administrative and survey data do not contain any information that could be linked back to an individual or specific business. And for databases that do contain identifiable information, only a limited portion of the data in a database is potentially linked to individuals or

businesses in a way that could compromise privacy or security. It is important for metadata about datasets to clearly identify which (if any) fields are of particular security and privacy concern because they provide identifiable information (e.g, Social Security Numbers, personal names, house addresses). *Common and widely applied standards for metadata* would facilitate sharing of non-sensitive data and help ensure that potentially identifiable information is carefully protected and not released to unqualified individuals or institutions. Likewise, standardized ways of representing information about which data have received informed consent, and the conditions under which such consent is applicable can guide data access that maintains security and privacy.

With standards for credentialing, data access portals with standardized authentication, and sensitive information clearly identified according to metadata standards, it should be possible to apply *differential privacy* controls on data to ensure that only individuals or institutions with the proper level of credentialing have access to sensitive information. More importantly, differential privacy protocols potentially allow for linking information across multiple databases using sensitive identifiable information as linking (i.e., "key") fields--but then <u>not</u> including those sensitive fields in the joined information tables returned to users requesting data.

Implementing such a suite of standards for accessing and integrating data across the many datasets held diverse federal agencies would be desirable but also a monumental task from a practical standpoint. Hence, we recommend focusing initially on a national facility, an *integrative Human Analytics and Data Synthesis* (**iHADS**) clearinghouse, to provide a visible and accessible entry point to federal administrative and survey data. Such a national facility could develop and apply a common set of state-of-the-art standards for vetting, credentialing, authentication, and differential privacy that represent community-wide best practices. Providing a national suite of data portals to the many administrative and survey databases across the federal system, all accessible with a single credential and authentication, with the possibility of querying information from multiple, linked databases would encourage widespread use of such a system. Federal data managers could continue to maintain data as appropriate for their agencies and direct potential users to the national **iHADS** portals, with savings in administrative costs while improving security and privacy. Similarly, it would be more efficient and less costly to maintain and update these standards in a national **iHADS** clearinghouse than to do so across the many agency data management offices.

Data Infrastructure and Access

3. Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?

The full value of government data as a public good can only be realized if those data are indeed used to provide benefits to American citizens. In order to facilitate use of and access to

administrative and survey data, existing government data infrastructure should be modified so as to both reduce barriers and create incentives to widespread and diverse use.

Barriers to use and access include those that inhibit the sharing of data by data providers and those that make access and use more difficult for data users. From the perspective of data providers, it would be helpful to reduce legal, bureaucratic, political, and jurisdictional barriers to data sharing. For federal databases, a common set of standard protocols, in compliance with federal privacy protection statutes, for identifying which individuals and institutions are qualified to access data of different degrees of sensitivity with regard to personal and other identifiable information would make it more straightforward for individual data managers to decide what data should and should not be shared with which users (see also Question #10). This spans data that should be broadly accessible by all members of the public to highly sensitive data that should be restricted in raw form to a limited number of most qualified users, but could be used by a much broader audience if identifiable information can be removed or anonymized through the application of differential privacy protocols (see comments for Questions #5 and #11).

The use of cyberinfrastructure to provide single sign-on authentication across multiple federal databases, for users vetted and credentialed with a common standard would reduce financial costs and administrative burden on agencies when making data accessible while ensuring statutory protection from disclosure. Such consistent access protocols, especially if administered through a national data clearinghouse charged with this responsibility would also make it much easier to access and integrate different datasets across agency jurisdictional silos. It would also be of considerable benefit to promote a data management culture that views administrative and survey data as ultimately belonging to the US citizenry that pays for is collection and upkeep. Such a culture would reward agencies and managers who are able to ensure that the federal data for which they are responsible is available most broadly for public use. Reducing administrative overhead and needless duplication of effort of making such data accessible across multiple agencies can help to promote such a culture of data sharing, and treating such data as a public good that can lead to transparency, reproducibility, and accountability in government. To the extent that efforts to reduce these administrative barriers to sharing data can be extended to state and local governments, it would further facilitate use of and access to data--adding important value to information collected and stored at these more local levels (see also Question #5).

Reducing barriers to data sharing within agencies equally benefits potential users of that data. Additionally, investments in cyberinfrastructure increase accessibility and ease of use from the user perspective. A key way to facilitate use is to significantly improve discoverability of government datasets. While some databases (e.g., those mentioned in the response to Question #1) can be found easily, many others have very limited exposure or are not exposed at all to Internet searches. Though Data.gov does provide a centralized search engine for identifying many federal datasets, it is still the case that many federal databases can only be found if users already know of their existence and where to look for them. New technologies to make data, their structures, and ontologies easily discoverable need to be implemented across the federal

data ecosystem. To the extent possible, it would be beneficial for protocols to improve discoverability be done in a systematic, standardized fashion to improve user ability to identify relevant information from multiple data sources in an equally standardized way. For example, a search on Google Scholar provides a unified query tool to locate many different kinds of documents, all of which employ a common set of meta-tags for exposure on Google (https://scholar.google.com/intl/en/scholar/inclusion.html#indexing). Because the number of federal databases is much smaller than the number of documents indexed by Google Scholar, a central index or 'library' of data sources that could be browsed or searched by title, topic, agency, etc is also feasible and would further facilitate access and use of such data. Such a library of federal data sources could be maintained and exposed to search by a national data clearinghouse.

A further technology-enabled modification to facilitate use and access to administrative and survey data is automated or semi-automated harmonizing of diverse data ontologies to allow seamless queries and linkages across multiple databases. As mentioned in the response to Questions #1 and #5, different datasets may be potentially linkable by information (i.e., fields) they hold in common, but the way that information is represented often varies from database to database. This requires a translation of the way information is represented (the text or codes in potentially common fields, and what they mean) so that different databases can be joined. This can be accomplished through translation dictionaries (when options are relatively few), sophisticated use of metadata (requiring that standardized metadata be present, of course--see Questions #2 and #4), user-assisted matching, or other means. At an even more fundamental, data may be stored in different file formats (e.g., SQL, DBF, CSV, fixed format, OGR, XLS, or many others). Linking different databases and integrating their information will require the ability to seamlessly read/import/export among these many file formats. While ontology translation and read/import/export capabilities could be implemented for each federal database, it would be more efficient to do so in a central data clearinghouse, such as the *integrative Human Analytics and Data Synthesis* (**iHADS)** facility proposed here, with significant costs savings to data managing agencies and greater accessibility for users.

4. What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation, and analysis purposes?

The increasing availability of real time high-resolution social, economic, and environmental data provide unique opportunities to advance public policies to address complex societal problems such as human health, social disparities and the threats of climate change. Forging new ground in many policy areas requires expertise in multiple disciplines across the human sciences and the data and computational science. Billions of records are generated everyday by many Federal and local agencies from multiple resources including daily economic transactions and yearly tax reports, daily health reports, environmental monitoring, social media, and other sources. Many of these data can be geolocated and linked to detailed geographic and environmental features.

However, datasets do not have value in and of themselves, but only through their use--e.g., in research, analysis, modeling, and evaluation. It is what is then done with the data that creates value. As we note in the overview and in responses to many of the questions here, linkages among disparate government datasets can significantly increase their potential to provide useful information. One way to use such government data is to download a dataset or subset of linked datasets to a user's local computer to be analyzed with their preferred software. However, some powerful methodologies being developed for advanced data science require high-performance computing (HPC) environments that may not be available to individual users, small businesses, or even relevant departments in academic institutions. The ability to build on the (properly credited) work of others--a hallmark of modern science--allows for rapid innovation and generation of new knowledge. A national facility, such as the *integrative Human Analytics and Data Synthesis* (**iHADS)** clearinghouse, could provide an environment for advanced analytics and data synthesis (e.g., large scale modeling, machine learning, data mining, visualization), that cannot realistically be accomplished on even modern desktop computers available to many users. Advances in cloud computing, including software as services, mean that this environment could be deployed and used by numerous individuals over the internet, without needing to be physically present at a national facility. This would offer a visible exemplar of the potential uses and benefits of government data. Additionally, it could also carry out or contract advanced research, including look-ahead modeling, to support specific policy related requests.

Such an environment also presents the opportunity for research computing workflows, using government datasets, to be saved and published so that uses could better work in teams and learn from each other. In this respect, we envision an integrated technological infrastructure whose main goal is two-fold. The first is to let users share computational/analytic tools and products; the second is to share and reproduce all data synthesis workflows, for example by means of open source interactive computing environments (e.g., IPython/Jupyter and R notebooks) and shared metadata standards. Dedicated secure data enclaves connected to a grid-based computing platform can provide the necessary computational capabilities for analysis and processing of the data. These enclaves can be accessed in a secure way by means of Virtual Desktop Infrastructure (VDI) technology, so that users can interact with the grid, its data, workflows, and metadata from individual workstations at their home institutions. Secure data enclaves also mean that the inadvertent sharing of sensitive data is reduced since the actual data will be maintained in one location and not replicated to the individual researchers' machines. Establishing a national **iHADS** clearinghouse and research environment will enable scientists to unlock complex patterns across space and time to better frame problems and present policymakers with opportunities for solving them.

5. What challenges currently exist in linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

Challenges to linking state and local data to federal data mirror the challenges of linking different federal databases, but are multiplied by increased diversity over management goals, practices, statutes and regulations, and technical issues across state and local jurisdictions.

There is variability in state laws regarding data confidentiality that facilitate or prevent access to government-collected data (e.g., access to vaccination registries varies from state to state). Related to this, there is lack of common shared standards for data protection and sharing across federal, state, and local levels. If a state or local government has statutes or regulations that serve to prohibit data access, it may be very difficult to attempt to link such data with relevant federal data. It would be beneficial to have a set of national guidelines and recommendations about data accessibility, coupled with protection of privacy. This does not guarantee that state and local governments would necessarily implement or follow those guidelines. However, the lack of common guidelines helps to ensure needless regulatory barriers to more effective use of information whose collection is publically funded.

Many state and local governments are inadequately staffed to curate and share their data, even where it may be allowed, or even required, by statute. This is particularly a problem for identifying, credentialing, and authenticating qualified users--magnified by inadequate technology that may require this to be done manually. Moreover, data may not even be digitized in a way that facilitates use across agencies (e.g., HIV diagnosis surveillance data is kept on paper note cards for the state of Massachusetts). Another critical technical issue is the lack of identifiers held in common by local, state, and federal databases that could serve to link across different information sources.

These many challenges mean that there have been few successful instances for integrating data across different levels of government. One example is *Medicaid Analytic EXtract* (MAX) system (https://www.cms.gov/research-statistics-data-and-systems/computer-data-and-systems/medicaiddatasourcesgeninfo/maxgeneralinformation.html), where Medicaid encounter records across different states have been linked and compiled into a more research-friendly set of Medicaid administrative files. This data product benefits both the federal government as it manages the Medicaid program and monitor the progress of the health care delivery system nationally and researchers studying ways to improve health care.

Another example, mentioned in the response to Question 1, involves University of Chicago's Urban Center for Computation and Data and Chapin Hall. They have negotiated agreements across different governmental agencies responsible for different aspects of the city of Chicago to be able to link administrative and survey data on people with information on places where they live. As noted above, these data are being used to identify geographic areas where resources could be targeted to improve family well-being and reduce dependence on public services. The New York City Department of Health also links data from surveys, from traditional public health

surveillance data, and from agency and administrative data (education, planning, police), and observational data (social media, sensors), to geographic locations in the city to improve public health and mitigate disease (e.g., flu) outbreaks.

The proposed **iHADS** clearinghouse could help to address some of the issues facing linking data from federal sources with that from state and local governments. It could help develop national guidelines and best practices to facilitate such intergovernmental data linkages. It could also further develop and deploy cybertools to overcome some of the technical incompatibilities created by different ways of representing data. For example, methods of probabilistic matching exist and could be employed to link records where there are no common identifiers to serve as key fields. More than anything, a national facility like the **iHADS** clearinghouse could provide a powerful exemplar of the potential for evidence-based policy making to encourage the adoption of best practices by state and local agencies.

Although we propose that a national facility like the **iHADS** clearinghouse focus initially on federal databases, we also think that state and local governments could potentially also become data portals, in much the same way that Data.gov provides links to city, state, and federal datasets. This would give state and local governments the ability to adopt and benefit from common standards of credentialing, authenticating, differential privacy protocols, and querying across multiple databases. Because an **iHADS** clearinghouse is envisioned to serve more as a portal to data stored elsewhere than a data storage facility, it would benefit greatly by economies of scale in expanding its services to state and local agencies. As noted above, this could add significant value to state and local databases while lowering costs and improving security.

6. Should a single or multiple clearinghouse(s) for administrative and survey data be established to improve evidence-based policymaking? What benefits or limitations are likely to be encountered in either approach?

There would be a high payoff to having a national clearinghouse for *integrative Human Analytics and Data Synthesis* (**iHADS**). Such a clearinghouse could deal with the many of the challenges involved in increasing and coordinating access to administrative data from federal, state, and local governments. This clearinghouse could assemble expertise in the legal, computational, analytical, and human subjects issues required to successfully increase access to administrative data that have thus far been considered too sensitive for use by researchers. The clearinghouse could develop standard protocols and data use agreements, informed by research on disclosure risk, that could be useful in creating an environment in which federal, state, and local agencies become comfortable with increasing access to administrative data. The clearinghouse could also work with agencies in developing protocols for linking administrative records. A single clearinghouse with this mandate could be much more effective and efficient in making these arrangements than the current situation in which individual researchers and institutions approach agencies on an ad hoc basis. Finally, a national **iHADS** clearinghouse could

also enable exemplar advanced research to support evidenced-based policymaking and demonstrate the value of federal data.

A number of research data repositories also exist, generally associated with universities, for survey data, census data, genetic data, health data, education data, etc. Most of these focus on data collected in the course of scientific research (often federally funded). Like federal databases (as discussed in Question #7), it would be counter-productive and cost prohibitive to physically incorporate them into a single, national clearinghouse. However, a national **iHADS** clearinghouse could collaborate with scientific research networks to establish convenient portals and links these research data repositories that address different types and levels of data than government data. There would be significant returns to efforts to encourage and facilitate such coordination, avoiding duplication in data management, enabling and facilitating linkages between federal data and research databases, and sharing knowledge and cyberinfrastructure for data analytics. Because it is no longer necessary to have data physically located in a single locale or coterminous with resources for analysis, the most important goals should be facilitating access to and use of the data currently collected, curated and disseminated in multiple data repositories.

We recommend that the Commission consider a study by an independent scientific organization such as the National Academies of Sciences, Engineering, and Medicine as a valuable guide for the organization and implementation of such a national clearinghouse like the proposed **iHADS**.This could coordinate with and build on an ongoing study by the Council of Professional Associations on Federal Statistics (COPAFS), supported by the Sloan Foundation and American Economic Association on how to improve access to federal administrative data for evidence-based policymaking.

7. What data should be included in a potential U.S. government data clearinghouse(s)? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

Survey data is taken to include data typically collected through the Federal Statistical System that generates information about broad population characteristics as well as data typically collected and associated with a specific evaluation or other study that may be started and developed directly through agency evaluation functions or indirectly by a funding recipient. Examples include U.S. Census Bureau data on individuals and businesses, and data from national and local surveys. In a broader sense, survey data can might also encompass other forms of observational data like US Geological Survey land-cover data, National Oceanic and Atmospheric Administration night lights, and satellite remote sensing data from NASA.

Administrative data refers to administrative, regulatory, law enforcement, adjudicatory, financial, or other data held by agencies and offices of the government or their contractors or grantees (including states or other units of government) and collected for other than evidence-building purposes. Administrative data is typically collected to carry out the basic administration of a program, such as processing benefit applications or tracking services received. Any of these

data can (but do not necessarily) relate to individuals, businesses, and other institutions. Examples include national data collected by the Centers for Medicare and Medicaid Services, National Death Index, Social Security Administration, Federal Bureau of Investigation and Department of Justice (uniform crime reporting), Housing and Urban Development (housing), Health and Human Services (health and social services), and Immigration and Naturalization Service (immigration).

A national clearinghouse would offer the greatest benefit to users and to agency data managers if it facilitated access to the broadest possible spectrum of government data, but it should not be necessary to physically house most of those data in the facility. Rather, a national clearinghouse should employ advanced cyberinfrastructure (e.g., grid computing and software-as-a-service) to provide online *portals* to government databases physically housed within the agencies responsible for their collection and management. Only federal data for which no responsible managing agency currently exists (e.g., legacy data) might need to be physically stored at the national clearinghouse. Serving as a *meta-portal* to many diverse datasets, a national clearinghouse could focus on providing open access to non-sensitive data, facilitating data discovery, authentication of potential data users, application of differential privacy to protect sensitive information, and harmonizing data ontologies and formats to facilitate sophisticated data use and analytics (see Question #3). It also could coordinate the development and promulgation of common standards and best practices for federal data access and use. This avoids duplication of the effort and cost of large data storage and management, and the need to constantly synchronize duplicate copies of dynamic federal databases, while allowing other agencies to focus on their core missions. Rather than investing in large and quickly outdated banks of data servers, a national clearinghouse could focus its resources on the development and deployment of cyberinfrastructure to facilitate broad and secure access to federal data sources and a robust and comprehensive suite of next generation analytics for this data.

As discussed in more detail in Question #9, barriers to a national clearinghouse include diverse access protocols and interpretations of privacy protection statutes and regulations, jurisdictional silos, discoverability of federal data sources, diverse data ontologies and formats, and lack of pan-federal standards for metadata and other best practices for data management and accessibility. However, these are more effectively addressed at lower cost in the context of a national clearinghouse for *integrative Human Analytics and Data Synthesis* (**iHADS**) envisioned here than attempting to restructure the entire federal data ecosystem.

8. What factors or strategies should the Commission consider for how a clearinghouse(s) could be self-funded? What successful examples exist for self-financing related to similar purposes?

We strongly endorse a principle of open, unfettered access to all federal data, including non-sensitive data and those aggregated from sensitive data. Data are the most powerful as engines of innovation and economic value across both private and public sectors when transparently available

and openly accessible. Transparency and accessibility also facilitates research that can contribute to more effective policy-making. The American public has already paid with their tax dollars for the collection and management of the information in federal databases; thus, earning the opportunity to benefit from the shared national value of such data and arguing for broad public support.

A national **iHADS** clearinghouse for government data could generate significant cost savings while increasing return on investment for agencies that must manage sensitive data, identify qualified users of data, and provide data to those users while protecting sensitive information. It could also offer significant cost savings to potential users by reducing administrative and regulatory barriers, improving data discoverability, and facilitating linkage across multiple datasets. As discussed in responses to the other questions, it could significantly leverage the inherent value of federal data by creating technical capacity and best practice standards to link it with state, local, and research databases further increasing the returns to the American public.

The creation of new cyberinfrastructure to facilitate the use and synthesis of diverse data sources about human systems--including federal administrative and survey data--has the potential for important benefits beyond better policy-making, including personalized health care, targeted economic development, and accelerated innovation. Because human decisions and actions are major drivers in many of earth's biophysical systems today, next generation science of human systems, supported by advanced data synthesis and analytics can offer new insights into 'natural' systems that can impact human life and well-being.

As cost savings and benefits of coordinated and open access to government data grow, we expect that states and communities that can benefit by more accessible, integrative data will seek to participate in data integration initiatives. Many cities are already investing in data infrastructure of the type suggested here (see Question #1). Over the long term, a consortium model of producers and users, including data agencies, research institutions, the private sector, and non profit organizations could contribute to further development of a new national data infrastructure.

9. What specific administrative or legal barriers currently exist for accessing survey and administrative data?

Data privacy and confidentiality as well as data ownership are important barriers to all data exchange and access. All forms of data are governed by some type of access rule or restriction that are defined in the context of data collection. For instance, survey data are usually protected by informed consent and require that a respondent's confidentiality is ensured in data distribution. The methods for protection include limiting identifying information and protecting against deductive disclosure in public use data files and/or developing restricted use agreements and contracts to gain access that limit access through a legal agreement.

Federal agencies, in particular, have different processes to help data analysts gain access to the data, in part, because agency surveys are often covered by different privacy legislation and may require different legal agreements. Administrative data such as Medicare claims, social

security files, and other federal records are protected by different data use agreements to protect individuals' privacy and again vary substantially by agency and data source. The Center for Medicare and Medicaid Services, for instance, centralizes access to all of their data files through a secondary vendor at the University of Minnesota but the Census Bureau requires an application to use data in a decentralized virtual enclave in university settings. Similarly, privately held data such as social media or private organizations' records from vendors such as health care institutions and insurers require each analyst negotiate separate legal agreements and limit the amount of information that analysts can access.

The idiosyncratic and variable nature of the legal agreements necessary to access federal data alone often deters use. A centralized source of guidance and advocacy such as a clearinghouse for *integrative Human Analytics and Data Synthesis* (**iHADS**) would expedite use and linkage. Moreover, the ability to centrally credential individuals access to data would expedite the greater use of a wide variety of data sources, since currently individuals have to separately credential to each data source that they want to access. It would be especially valuable if the **iHADS** could act as an institutional agent for individual researchers because data use agreements often require an analyst to be in an institution that is willing to take on liability for violation of those agreements and many researchers do not or cannot make that commitment.

10. How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions?"

Researchers and research institutions are fundamental drivers of economic and technological innovation. Well-managed access data serves as a research and innovation accelerator. To accomplish equitable and informed vetting and credentialing of institutions and individual researchers, it is desirable to have a common set of standards and terms of use agreed on by the community of stakeholders, including data managing agencies and potential data users-- including academic and research institutions that are already vetted and credentialed to carry out research by nationally recognized scientific and scholarly agencies like the National Science Foundation, National Institutes of Health, and National Endowment for the Humanities. Criteria for identifying qualified researchers and institutions should apply to quality of the potential user and not the ability to pay for or provide services in exchange for data access. These standards need to be applied fairly to all institutions and individuals who might seek to use administrative or survey data. We suggest that a central facility, like the proposed *integrative Human Analytics and Data Synthesis* (**iHADS**) clearinghouse could serve to develop and apply these standards to evaluate qualified researchers and institutions.

Peer review has been a powerful and widely successful model for evaluating research quality and for allocating research funding from science supporting agencies like NSF and NIH for institutions and individuals. A similar model would be an effective method to help define standards and procedures for applying them to identify qualified researchers and institutions.

This should involve assessment of the capacity of institutions, researchers within institutions, and independent researchers to follow best practices for secure data management, protection of privacy, ethical use, appropriate research protocols, and open dissemination of results so that they are available for public policymaking, as well as use by other researchers and the private sector. Different institutions and researchers may potentially be qualified for different levels of access to some data sources. Where sensitive information is involved, this can be managed through differential privacy protocols applied to vetted and credentialed users, which automatically give them appropriate level of access.

11. How might integration of administrative and survey data in a clearinghouse affect the risk of unintentional or unauthorized access or release of personally-identifiable information, confidential business information, or other identifiable records? How can identifiable information be best protected to ensure the privacy and confidentiality of individual or business data in a clearinghouse?

Currently, there are diverse, sometimes conflicting, standards--or even no standards at all--for management of federal administrative and survey data. This data ecosystem is even more chaotic when state and local governments are included. Some data are well-organized, carefully managed for appropriate access, and provided to vetted researchers. Other data sit on discoverable servers that make datasets available to anyone with the appropriate FTP address or URL. Yet other data are locked from any outside access, even though they do not contain sensitive information or are inaccessible to reputable researchers but stored on systems easily hacked by disreputable individuals.

A national facility, like the proposed *integrative Human Analytics and Data Synthesis* (**iHADS**) clearinghouse could develop and apply a consistent body of standards, access protocols, and credentialing tailored through differential privacy protocols to the privacy needs of each dataset and the credentials of each institution and/or researcher requesting access. By so doing, it could begin to establish and be an exemplar of best practices for governmental (and other) administrative and survey data. It would also be an active advocate for applying such best practices, and could help agencies identify places to improve data management protocols. Moreover, as discussed in the answer to question #4, by providing secure data enclaves for the analysis of the data, a clearinghouse, such as the one envisioned here and in other questions, would reduce the number of replications that exist of sensitive data and thus improve the overall security of that data since individual researchers would not be responsible for the security of the data, as they would be if they downloaded the data to their local machines.

That is, a central clearinghouse would actually provide more effective security for potentially identifiable information as an honest broker and responsible gatekeeper, than the current federal data ecosystem where each data manager for each data set within each agency at federal, state, and local levels independently determine how that data should be managed and protected. A

central clearinghouse like **IHADS** has the potential to help individual agencies better protect identifiable information than they do now, and with lower administrative overhead and cost.

12. If a clearinghouse were created, what types of restrictions should be placed on the uses of data in the clearinghouse by "qualified researchers and institutions?"

Data are a most powerful engine of innovation, economic growth, and effective policy when transparently available and openly accessible. The goal of a facility, like the proposed clearinghouse for *integrative Human Analytics and Data Synthesis* (**iHADS)** should be to make data collected and managed with public funds as accessible as possible in and enable the widest and most advanced possible use by qualified individuals and institutions institutions, while ensuring data integrity and preventing inappropriate or unauthorized access to identifiable information. That is, a clearinghouse should focus on reducing barriers to data access and use, rather than restricting use, so that government data can provide maximum value for US citizens, businesses, and research institutions—and can be most effectively used as a foundation for evidence-based policymaking.

As mentioned in the response to Question #10, clear standards and peer-review can help ensure that only qualified users access federal data with identifiable information through a national clearinghouse like iHADS. Moreover, differential privacy controls and behind-the-scenes linkages that subsequently remove identifiable information prior to returning it to data requestors can help make a much wider array of federal data openly accessible and useful than would otherwise be possible. As noted in the response to Question #9, centralizing legal responsibility to maintain data integrity and individual privacy in a national clearinghouse also makes publicly funded information more accessible and increases value to cost ratios. It would also be much easier for a centralized clearinghouse to update its policies with respect to how to best anonymize and privatize data to keep up with new scientific findings in this space; thus, it could ensure that the data was used in a responsible manner.

13. What technological solutions from government or the private sector are relevant for facilitating data sharing and management?

In addition to technologies discussed in response to other questions, there are a number of technological solutions are being applied in metadata standards, the private sharing of data, and even open access to private data that would be useful to build upon in facilitating data sharing and management. For instance, there has been considerable work done recently in metadata standards that attempt to provide standardized ways of describing data to make those datasets more useable and more searchable by scientists interested in working with those datasets. One recent group working in this space that seems relevant is the Open Collaboration Data Factories/Exchange (www.ocdx.io), an NSF-funded organization that is attempting to create

metadata standards, as well as query and analysis tools that work with those metadata standards to provide more transparent access to open online community data.

OCDX and other groups have also built upon the recent trend in cloud computing to create containerized space using tools like Docker and Kubernetes. These are self-contained computational entities that use operating-system-level virtualization to contain the work of a particular user. Utilizing these tools it is possible to create a separately contained virtual data enclave that secures data for one user, or group of users to use. This means that there is little to no risk of cross-contamination of data even when it is stored on the same physical machine.

There have also been advances in making private data available for social insight analysis. This has resulted in the creation of new standards and methods for anonymization. For instance, the JPMorgan Chase Institute, a new research think tank in DC, is planning to make detailed financial data available to researchers who are involved with the institute, and give them the tools to analyze the data for the advancement of science. These standards and solutions they develop could be most effectively developed and deployed across the federal data ecosystem in a national clearinghouse, like the *integrative Human Analytics and Data Synthesis* (**iHADS**) facility proposed here.

14. What incentives may best facilitate interagency sharing of information to improve programmatic effectiveness and enhance data accuracy and comprehensiveness?

Federal agencies ultimately are established to serve the American public. When the mission of an agency involves the collection of data, it can only serve the public if it also makes these data accessible to the extent possible, while still protecting sensitive components of those data. Hence, the obligation to share information must be built into the mission of any data-collecting agency—and especially so for improving public policy and program effectiveness. Federal agencies that support science require all recipients of federal funding to submit and then follow comprehensive data management plans. These plans must include details of how data collected with public funds will be sustainably curated and made accessible for broad public access, while protecting any sensitive information from disclosure. The same requirements should be extended to all federal agencies that collect and manage data.

In real-world settings, there are always limits and challenges to the accuracy and comprehensiveness of any dataset. Hence, agencies should be rewarded, rather than punished when efforts to make data accessible and transparent identify data gaps and inaccuracies so that they can be remedied. Conversely, agencies should be held accountable if they inhibit the opportunity to improve data quality by restricting access to those data.

A national clearinghouse, like the proposed *integrative Human Analytics and Data Synthesis* (**iHADS**) facility, could provide templates and guidance for agency data management plans. As a national portal to facilitate data discovery, linking across datasets, user credentialing, and next generation data synthesis it could provide significant and substantive help to agencies for

carrying out those data management plans and meeting mission obligations for data sharing (see overview and responses to Questions #2, 3, and 8). As discussed in these responses, this would both reduce costs and increase return on investment in data collection and management.

Data Use in Program Design, Management, Research, Evaluation, and Analysis

15. What barriers currently exist for using survey and administrative data to support program management and/or evaluation activities?

In many ways, the barriers to using survey and administrative data for program evaluation are the same as those to accessing this data, discussed in Questions #1, 3, 5, 7, and 9. If relevant data cannot be discovered, cannot be accessed by qualified researchers, cannot be made available due to insufficient agency staff, have incompatible ontologies or formats, or are restricted by bureaucratic or legal issues that data cannot be used to support programs or reliably evaluate their outcomes. Again, as discussed in responses to other questions, standards-based best practices should be used for making program activities and outcomes as accessible as possible. Program activities and outcomes are what generate new federal data. These data need to be transparently and openly available, while managing any relevant privacy and security issues as discussed in responses to other questions, in order for programs to be evaluated on the basis of factual evidence. Such transparency will also make it easier to identify any issues or gaps in data quality, completeness, or accuracy.

16. How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?

The development of policies and programs are ultimately the responsibility of policy and program makers, guided by elected officials who represent US citizens. Regardless of the policy or program enacted, it is vital to know whether the extent to which it is or is not meeting its intended objectives—which can only be accomplished by the collection and analysis of data that reports on the activities and outcomes of the policy/program. The evaluation and improvement of a policy or program should not be based on anecdotal accounts alone. Quantitative, statistical evaluation, carried out by qualified researchers, can be designed to minimize observer biases inherent in the observation and intuitive assessment of program activities and outcomes. Evaluating policies and programs in a way that can reliably identify both successes and failures requires information based on data that are collected using the best available analytical techniques, guided by the needs of policymakers and program designers. Answers to previous questions have suggested a range of activities that will improve program and policy evaluation.

To further ensure the reliability and confidence in program and policy evaluations, it is becoming possible to archive entire analysis workflows to provide a transparent to procedures and data used for this essential task. If questions arise with regard to such evaluations, the

relevant workflows can be independently reproduced and assessed. Such transparency also provides the basis for ongoing improvements in programs, policies, and the protocols used to evaluate their activities and outcomes. The potential for such open scrutiny can foster greater confidence in government. A clearinghouse like the proposed *integrative Human Analytics and Data Synthesis* (**iHADS**) facility could act as an independent mediator between information needs of policymakers and human systems analytics scientists using data.

17. To what extent can or should program and policy evaluation be addressed in program designs?

Evaluation cannot take place in an information vacuum. All new programs and policies should include sufficient resources to allow ongoing evaluation activities. As an honest broker and responsible gatekeeper of federal data, the proposed clearinghouse for *integrative Human Analytics and Data Synthesis (***iHADS)** could guide development of tools that would facilitate access to existing data, and develop and promote best practices for new data gathering and curation efforts to improve evaluation(see response to Question #16),

In addition to ongoing evaluation of existing activities, proposed new programs and policies should also be subject to evaluation. The improvements in data management proposed above would contribute to more robust program and policy design. An **iHADS** clearinghouse could also function as a clearinghouse for development and curation of evaluative tools that could be built into program designs (see response to Question #16).

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0187
Comment on FR Doc # 2016-22002

Submitter Information

Name: Terra Fisk

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,

Terra Fisk
Colorado Springs, Colorado

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0188
Comment on FR Doc # 2016-22002

Submitter Information

Name: Terence Tryon

General Comment

Just as gun owners support their right to arms and as justification to ultimately protect their rights from potential government oppression, I believe we need to be protective of our rights through the protection of our private data. Especially, the data of our students. I am strongly opposed to the elimination of the ban on student data. This data needs to be protected, like the rights of our children.
Terence Tryon

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0189
Comment on FR Doc # 2016-22002

Submitter Information

Name: Gail Janensch
Address:
   Bridgeport, CT, 06604
Email: gailj2@optonline.net

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

As a grandmother of 2 elementary-grade grandsons and as a retired Connecticut certified high school teacher and as a constituent of Sen. Richard Blumenthal, a strong privacy advocate, I oppose the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database. I will be letting Sen. Blumenthal know of this communication to the Commission. Under the Higher Education Act of 2008, there is a ban on such collection. Keep this ban. States already collect enough data on students. The Federal government for policy purposes can get aggregated data on issues to facilitate education planning. There is no need for the US government to have details on students by name, only about groups of students to identify trends and suggest helpful initiatives useful to students by age in general. Big corporations say they want to help individual students learn better. And that they could help with individualized instruction if they had the individual data. No these big corporations want to make MONEY off

students. And if such a database were created and it was breached, young lives who cannot vote might be harmed because of adult actions. Keep the ban. Protect each child's privacy while they are so young and developing in their own way day by day.

PUBLIC SUBMISSION

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0190
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security

standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,
Carol W. Heinsdorf

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0191
Comment on FR Doc # 2016-22002

Submitter Information

Name: David Dobosz

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,

David Dobosz
NYC retired Teacher

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0192
Comment on FR Doc # 2016-22002

Submitter Information

Name: Susan Schmitz, MS, LMHC

General Comment

As a citizen of the US, resident of Florida, and Licensed Mental Health Counselor, I AM AGAINST the efforts to establish a federal "unit record" database that would create an individual data dossier of college students linked to their employment, with the strong likelihood that it would be connected to the K-12 longitudinal system.

This is a very dangerous idea. The beauty of the United States of America is the idea that one can constantly improve and make oneself "better". Employers of adults should NEVER have access to K-12 records. These years are sacred gardens of cultivation. The individual's privacy is imperative to this process. If an initiative such as this comes to pass, greater anxiety and mental health problems will increase in our youth. They already feel as if they live in fish bowls with social media. This kind of tracking will only make their self consciousness and evaluation pressure worse.

Sincerely,
Susan Schmitz, MS, LMHC
Wesley Chapel, FL

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0193
Comment on FR Doc # 2016-22002

Submitter Information

Name: Adam Weiner

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense, including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Sincerely, Adam Weiner, Brookline, MA

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0194
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,

Victoria Haddock, concerned parent

PUBLIC SUBMISSION

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0195
Comment on FR Doc # 2016-22002

Submitter Information

Name: Erin Rafferty

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,

Erin Rafferty

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0196
Comment on FR Doc # 2016-22002

Submitter Information

Name: Renee Crofford

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"
I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.
The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.
In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.
In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary

records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

A Worried Parent in Colorado

PUBLIC SUBMISSION

Docket: USBC-2016-0003
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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0197
Comment on FR Doc # 2016-22002

Submitter Information

Name: Hannah Lotton
Address:
  AK,

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security

standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0198
Comment on FR Doc # 2016-22002

Submitter Information

Name: David M

General Comment

I am a parent and a teacher: A parent of a 'gifted' student whom was tested and thus eligible to be in a gifted program due to her exceptional ability, and a teacher in a low socioeconomic area with one of the lowest aggregate scores for a district in the entire state of New York. I have a degree in Information Technology, and have relatives that own multi-billion dollar corporations.

As a result of the above, I understand the need for information, yet I understand the need for privacy. It is important to be able to focus resources where they are most needed. Unfortunately, this is not the only way such data may be used. It would be nice that if we were to pass a law prohibiting the use/exploitation of such information for political gain, or for categorizing people to make decisions that may negatively impact a person's opportunities in life, that such a law would be observed. To say that such laws would not be broken, would be extremely naive and perhaps even dishonest. To claim that such a treasure trove of information would never be hacked would be ignorant at best. We know that the most logical laws are broken by many, and that individuals in all places of our country have broken laws - even by those who repeatedly represent themselves as honest and are trusted by a great many.

As a teacher, I can unequivocally state that many of my students need more time to

develop their knowledge, skills, and attitudes as compared to a wide variety of other students. As a result, they can easily be judged comparatively and put at a disadvantage since their indicators will be lower than others in the same age group, etc. Just because the guidance they receive at home is far less than other households in a higher socioeconomic bracket does not mean they should be further inhibited or targeted. If targeting is done by numbers alone, how can child abuse be recognized, parental incarceration as a factor be considered, and developmental stunting due to malnutrition and the resultant diminished brain development be accurately identified by numbers alone? Many factors that affect attainment cannot be tested, and if they were, honest answers would not be received because many students walk around with extreme shame because they perceive themselves to be lesser than a 'normal' person (the statistical average characteristics of a person). We could say that we could consider those items in the statistics and adjust for them, but we also know that such adjustments can not be accurate without accurate harvesting of all factors and that lack of information can skew results away form certain populations. Results can be culturally biased. We could state that we can adjust for that, but we can't even design tests so that they are not culturally biased: It is impossible since different communities have different language and values (see Paulo Freire's "Pedagogy of the Oppressed" regarding this subject). There are way too many 'soft' factors to judge what works, that can not be integrated into an algorithm to yield a couple of factors to target for greater return on resources. Think what that means... resources for those in greater number, excluding those that are outliers for whatever reason. Unfortunately, we tend to dichotomize and simplify matters so that the public may understand them. If we institute such a system, this can only further categorize populations for further separation/simplification/injustice. Statistics can be allies in ignorance when misused. Misuse can not be eliminated as a possibility.

As a father of a gifted child, I do not want her to be tracked so that her opportunities may be skewed. Her total free will cannot be undervalued. Her personal information should never be put at risk, NO MATTER WHAT THAT INFORMATION IS! The redrawing of political boundaries/districts should not be redrawn based upon her address and likelihood to vote on an issue one way or the other that unbalances the value of her vote.

I am fully aware of the data warehousing and multi-dimensional databases that are already in place for the harvesting of customer resource management, and the extensive analysis that occurs. These databases have proven to increase profits and increase return on investment. Unfortunately, a business model does not work for government simply because a business operates in a market niche. The government should not choose what niche it looks to invest in based upon an incomplete and inaccurate view. Such databases can serve to provide targets for the most profitable areas in which to build private schools, thereby diminishing resources for many.

Lastly, I am at best disappointed that there is a push for a database such as this, to analyze data on public schools, yet not require private schools to release their statistics. Data from in the TRUE aggregate can provide more accurate information. Additionally, there is one truth: There are lies, damn lies, and the worst of all... statistics!

PUBLIC SUBMISSION

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0199
Comment on FR Doc # 2016-22002

Submitter Information

Name: Amadee Anonymous

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of

"D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,

Mrs. Amadee Safar, South Dakota

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0200
Comment on FR Doc # 2016-22002

Submitter Information

Name: Meg Bakich

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,
Meg Bakich

PUBLIC SUBMISSION

As of: August 04, 2017
Received: November 22, 2016
Status: Posted
Posted: November 28, 2016
Tracking No. 1k0-8t6e-2g1n
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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0201
Comment on FR Doc # 2016-22002

Submitter Information

Name: LIsa Vavrik

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.

In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors but also their families and friends.

The US Department of Education has been found to have especially weak security

standards in its collection and storage of student data, and received a grade of D for its security protections.

In addition, preK-12 student data currently collected by state departments of education that would potentially be shared with the federal government include upwards of 700 highly sensitive personal data elements, including students' immigrant status, disabilities, disciplinary records, and homelessness data.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from PreK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

Yours,

Lisa Vavrik

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0202
Comment on FR Doc # 2016-22002

Submitter Information

Name: Timothy Kenyon

General Comment

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700

highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Sincerely,

Timothy Kenyon
NYS Teacher and parent

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0203
Comment on FR Doc # 2016-22002

Submitter Information

Name: David Rosenberg

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

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In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,

David Rosenberg

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0204
Comment on FR Doc # 2016-22002

Submitter Information

Name: Kristy Hazel
Address:
   Baltic, 57003
Email: kristyhazel@live.com

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database. Student privacy is at risk. The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security

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I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,
Kristy Hazel
South Dakota

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0205
Comment on FR Doc # 2016-22002

Submitter Information

Name: Nicole Barcliff
Address:
  Washington DC, DC, 20006
Email: nbarcliff@lisc.org

General Comment

Date: November 22, 2016
Attn: Shelly Martinez
Executive Director of the Commission on Evidence-Based Policymaking
Cc: Nick Hart, Policy and Research Director for the Commission on Evidence-Based Policymaking
nicholas.r.hart@census.gov
Re: Docket ID USBC-2016-0003
Commission on Evidence-Based Policymaking Comments
Submitted by: The Local Initiatives Support Corporation (LISC)

Thank you for the opportunity to offer comments on the future activities and scope of work to be undertaken by the Commission on Evidence-Based Policymaking. The Local Initiatives Support Corporation (LISC) views this as an opportunity to positively influence how data is used to improve outcomes for communities with persistent economic and social challenges. We hope that LISC's comments (see attached) - which are informed by our experience in funding and facilitating the collaborative efforts of

local constituencies and the public and private sectors - will be useful to the Commission.

Please contact us if you have any questions or if LISC can serve as a resource to the Commission.

ABOUT LISC
Established in 1979, the Local Initiatives Support Corporation (LISC) is a national nonprofit and Community Development Financial Institution (CDFI) dedicated to helping community residents transform distressed neighborhoods into healthy places of choice and opportunity - good places to work, do business and raise children. LISC mobilizes corporate, government and philanthropic support to provide local community development organizations with loans, grants and equity investments; local, statewide and national policy support; and technical and management assistance. LISC has local offices in 31 cities and partners with more than 70 organizations serving rural communities throughout the country. We focus our activities across strategic community revitalization goals, including: expanding investment in housing and other real estate; increasing family financial stability; stimulating economic development; improving access to quality education; and supporting healthy environments and lifestyles.

For more than three decades, LISC has developed programs and raised investment capital to help local groups revive their neighborhoods. The following feedback and recommendations are rooted in our organization's experience in collaborating with community groups to use research and data to identify the priorities and challenges of their neighborhoods, and deliver the most appropriate support to meet local needs.

FEEDBACK & RECOMMENDATIONS
LISC is pleased to offer feedback and recommendations to the following questions:

Overarching Question(s): 1.

Data Infrastructure and Access Questions: 3., 4., 5., 11., 14.

Data Use in Program Design, Management, Research, Evaluation, and Analysis Questions: 15., 16., 19.

Attachments

LISC EBPC Public Comments 11-22

<table>
<tr><td>**Date:**</td><td>November 22, 2016</td></tr>
<tr><td>**Attn:**</td><td>Shelly Martinez
Executive Director of the Commission on Evidence-Based Policymaking</td></tr>
<tr><td>**Cc:**</td><td>Nick Hart, Policy and Research Director for the Commission on Evidence-Based Policymaking
nicholas.r.hart@census.gov</td></tr>
<tr><td>**Re:**</td><td>Docket ID USBC-2016-0003
Commission on Evidence-Based Policymaking Comments</td></tr>
<tr><td>**Submitted by:**</td><td>The Local Initiatives Support Corporation (LISC)</td></tr>
</table>

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For more than three decades, LISC has developed programs and raised investment capital to help local groups revive their neighborhoods. The following feedback and recommendations are rooted in our organization's experience in collaborating with community groups to use research and data to identify the priorities and challenges of their neighborhoods, and deliver the most appropriate support to meet local needs.

FEEDBACK & RECOMMENDATIONS
LISC is pleased to offer feedback and recommendations to the following questions:

Overarching Questions
1. _Are there successful **frameworks, policies, practices, and methods** to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe._

CHALLENGES

As federal agencies adopt evidence-based policies to become better stewards of limited taxpayer resources and improve outcomes for communities, we encourage them to be mindful of the following challenges related to practical implementation in local neighborhoods:

Local organizations lack the capacity and financial support to develop the ability to effectively implement data-driven programming.

Many organizations serving high need neighborhoods were established to address specific challenges, and did not evolve from structured research. As such, the application of evidence-based principles to policies that govern programs targeting low-income communities is still fraught with challenges. In our experience, most local organizations have limited familiarity with collecting data, lack data system infrastructures, and do not have adequate funding to address these deficiencies – making it extremely challenging to implement and evaluate rigorous programs. If local organizations are to be successful in implementing evidence-based programs and practices, they need financial support and technical assistance to build their organizational capacity.

Investing in research summaries and the production of additional materials and trainings that aid "data translation" would help local policymakers and other leaders, many of whom might not have the resources for a significant, ongoing academic research partnership, to pursue evidence-based practices. For example, the CrimeSolutions.gov database of evidence summarizes important criminal justice research in a relatively accessible way. It could be improved through modifications to capture important findings from research studies beyond the top-level classification of whether particular strategies were successful.

Local organizations that are developing capacity take longer to show evidence of effectiveness toward achieving outcomes in communities.

We know that very few organizations serving high need communities have the technical expertise, capacity and funding to decide which data is important to collect and develop evaluations that assess effectiveness toward achieving desired outcomes. Many service providers are just beginning to shift from collecting process data to collecting data that can be used to show program effectiveness and progress for participants. Accountability measures, particularly those that might be used to limit or eliminate programmatic funding based upon progress toward achieving outcomes, need to take the limitations of local organizations making the shift to evidence-based programs into consideration. Specifically, organizations should be given a reasonable timeline to integrate data-driven practices and, if they do not meet the benchmarks associated with desired programmatic outcomes, they should be guided to adopt quality improvement measures to improve their results.

Policies that encourage the adoption and implementation of evidence-based programs often do not include sufficient support for innovative promising approaches. Promising programs and innovations should be incubated and helped along the road to becoming evidence-based.

It is encouraging to see policymakers move in the direction of ensuring that publicly supported programs achieve their intended outcomes and improve the quality of life in struggling communities. Program implementers face significant pressures to demonstrate that the approaches adopted improve participant outcomes, are cost-effective and have a return on investment. The pressure to show progress toward achieving desired programmatic outcomes coupled with unrealistic timeframes to achieve significant outcomes may inadvertently lead to abandoning programs that work, but do not yet have a robust evidence base. As previously mentioned, local program providers often lack the funding and capacity to demonstrate evidence of effectiveness. In addition to supporting replication of proven programs, it is important that federal efforts promote and incubate innovation, and allow sufficient time for demonstration of outcomes.

Evidence-based policies and community-oriented / community-driven decision-making are often mistakenly perceived as mutually exclusive.
We have observed that some policymakers view evidence-based decision-making and community-oriented or community-driven decision-making as mutually exclusive. There is a flawed assumption that evidence-based decisions happen when policymakers gather with experts behind closed doors to parse significant amounts of research and emerge with policy decisions; in community-oriented processes, residents are invited to participate in setting priorities based wholly on their own perceptions and experience, with no consideration of evidence. We see this as a false choice that leads to important decisions being made in a top-down fashion, with smaller decisions left to superficially indulge communities.

SUCCESSFUL POLICIES
Policies that support collaboration between the public and private sectors hold great promise for addressing community need. Below are several successful programs that are instructive to efforts that seek to promote data driven investments, support innovation, and employ cross-sector partnerships.

- **Corporation for National and Community Service (CNCS) Social Innovation Fund (SIF)**
  Authorized by the Edward M. Kennedy Serve American Act of 2009, SIF catalyzes the use of data-driven approaches with evidence of effectiveness in local communities. Through an intermediary structure, the program mobilizes public and private sector resources to address local and national challenges in three priority areas: economic opportunity, healthy futures, and youth development. Since 2010, the SIF has invested $800 million in compelling community solutions, allocating more than $295 million in federal grants and leveraging more than $582 million in non-federal match commitments.

  o **The SIF Classic Program** provides awards to eligible grant making institutions or partnerships to select, fund, support, and evaluate community-based nonprofits seeking to grow innovative, evidence-based solutions in the areas of economic opportunity, healthy futures and/or youth development. SIF Classic resources are enabling LISC to grow, scale, replicate, and enhance the Financial Opportunity Center (FOC) model. FOCs provide low-income individuals with integrated services across three critical areas: employment services and career planning, financial coaching, and income supports. SIF resources enabled evaluation of the model. The research revealed that clients who accessed combined services were 50% more likely to land a well-paying job than people receiving employment services only, and that long term employment almost doubles when financial coaching reinforces the work of employment counseling.

  o **The SIF Pay for Success (PFS) Program** awards grants to eligible nonprofit organizations to leverage upfront philanthropic and private dollars to fund social service programs that demonstrate success through measurable outcomes. LISC was awarded PFS resources to help social service providers design effective programs, raise private capital and produce the metrics needed to demonstrate positive outcomes. Three to four high-quality projects in need of transaction structuring services for youth development, economic opportunity and healthy futures will be supported by the award. This program may to revolutionize the way that social services are funded and delivered.

  One challenge facing innovations funded by the SIF is identifying a pathway to integrating, scaling and expanding approaches with evidence of effectiveness in a manner that aligns with existing federal efforts to address national and local challenges. In fact, despite the SIF's widespread success, many federal agencies are unaware that SIF-supported innovations leverage significant private capital, and have the potential to help improve existing programs, yielding better outcomes for vulnerable communities. If seriously considered by federal agencies, SIF innovations have the potential to help agencies tackle pressing social and economic issues. We believe that the SIF program

evaluations, data, and experience of partner organizations are of particular value to federal agencies tasked with providing effective services in the areas of economic opportunity, healthy futures, and youth development. As the Commission builds out its priorities and scope of work, our Coalition suggests that you encourage federal agencies to adopt relevant data-driven programs/strategies with evidence of effectiveness currently supported by the Social Innovation Fund at the Corporation for National and Community Service (CNCS).

- **Department of Justice (DOJ) Byrne Criminal Justice Innovation Program (BCJI)**
  We encourage the Commission to recognize the importance of investing in action research models tied to evidence-based decision-making to address problems that are known to be shaped significantly by context. In the case of community safety programs, the social cohesion of a high crime community is known to have complex compounding factors – like crime drivers that are inextricably linked to poverty and disinvestment. The Byrne Criminal Justice Innovation (BCJI) Program recognizes that context is important, and supports the use of data to address crime contextually.

  The Byrne Criminal Justice Innovation (BCJI) Program brings together diverse partners including local law enforcement, researchers and residents to analyze crime drivers and pursue strategies that reduce crime, spur revitalization and build community-police collaboration. Administered by the Department of Justice Bureau of Justice Assistance, BCJI is part of the "Smart Suite" of programs that support partnerships between researchers and practitioners to develop data-driven and evidence-informed strategies. The Program creates a unique structure that supports the development, implementation, and evaluation of promising innovative approaches to crime reduction in areas historically plagued by persistent crime.

  BCJI is an important data driven program not only because of its support of innovative practices, but also because of the distinctive role of technical assistance (TA). The program requires cross-sector partnerships to use data and research to adopt and implement crime reduction strategies. Because the cross-sector partnerships include local community members who may have no experience with the development of research-driven programming, and researchers who have may have no experience in authentic community engagement, the technical assistance providers are essential to facilitating dialogue that leads to the adoption of a data-driven crime reduction implementation strategy. The technical assistance provider is essentially the intermediary glue that binds research and residents.

Data Infrastructure and Access
3. *Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?*

   In facilitating the use of and access to administrative and survey data, we believe that existing government data infrastructure should consider the implications for individuals who are very transient or are victims of identity theft. Assumptions about using information like address or birth date to link individuals' records across datasets may be less applicable to some populations.

4. *What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation, and analysis purposes?*
   The Data-Driven Justice Initiative (DDJ) and similar efforts that seek to support local governments in sharing data for broader public use may prove instructive regarding the facilitation of data merging. DDJ was launched with a bipartisan coalition of 67 city, county, and state governments committed to using data-driven strategies to divert low-level offenders with mental illness out of the criminal justice system and change approaches to pre-trial incarceration, so that low-risk offenders no longer stay in jail simply because they cannot

afford a bond. The initiative brings data together from across criminal justice and health systems to identify the individuals with the highest number of contacts with police, ambulance, emergency departments, and other services, and link them to health, behavioral health, and social services in the community, with a goal of reducing overreliance on emergency healthcare and encounters with the criminal justice system.

5. *What challenges currently exist in linking state and local data to federal data? Are there successful instances where these challenges have been addressed?*
   Many of the challenges that exist in linking state and local data to federal data also exist in trying to link similar data across federal agencies. Challenges exist in the following areas:
   - In some cases, data collection efforts for programs serving the same individuals either overlap or are duplicative. Local programs may have to collect the same data points on the same participants but enter that data into different platforms because of disjointed data collection requirements across agencies and programs.
   - Similar terms are defined differently because different levels of government and agencies have different objectives for the use of data.

11. *How might integration of administrative and survey data in a clearinghouse affect the risk of unintentional or unauthorized access or release of personally-identifiable information, confidential business information, or other identifiable records? How can identifiable information be best protected to ensure the privacy and confidentiality of individual or business data in a clearinghouse?*
    One strategy to protect identifiable information to ensure the privacy of individual or business data is to amend the Common Rule governing the mandate and invocation of Institutional Review Boards (IRBs) and to be more diligent about privacy impact in the context of use of clearinghouse (or all administrative/survey) data.

14. *What incentives may best facilitate interagency sharing of information to improve programmatic effectiveness and enhance data accuracy and comprehensiveness?*
    We are pleased that the Commission has an interest in improving interagency sharing of best practices. The Commission should consider the sharing of information and the use of information to improve programmatic effectiveness as two related, but distinct objectives. For example, agencies may currently be utilizing platforms for sharing research and data of innovations, but the shared information may only be targeting research divisions of agencies, which often exist in silos, separate from staff responsible for programmatic implementation. As such, interagency sharing improvements should not only improve the platform used for information sharing, but also influence the way that research divisions of agencies communicate with an influence programmatic divisions.

    An incentive program for the adoption of shared information in an effort to improve programs may be useful in encouraging agencies to pilot or integrate innovations. Incentives could include additional funding or special national recognition from the White House.

Data Use in Program Design, Management, Research, Evaluation, and Analysis
15. *What barriers currently exist for using survey and administrative data to support program management and/or evaluation activities?*
    Often, survey and administrative data is not used to support program management or evaluation activities at the local level because providers have funding limitations (most programs do not have enough operating capital to meet the needs of their communities, much less to purchase data systems), and lack the capacity to make decisions about research.

    As a national intermediary that works in very specific cities & neighborhoods, we perceive several specific challenges.
    - Survey data is generally not available at the small neighborhood-level geographies where we actually implement our work - results are only significant at city/state/metro/national level depending on the dataset.

- Administrative data, is more likely to be available for small geographies but is often not consistent or reconcilable across geographies. For example, it may be feasible to use administrative data for a study that is taking place only in Chicago, but it becomes harder to find & access parallel data for multiple cities at once.

16. *How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?*
Data, statistics, the results of research and evaluation findings should be used to improve policies and programs, but programs should also be allowed to innovate on the ground in order to adapt to and address environmental circumstances. The heavy emphasis on experimental and quasi-experimental designs make it much more difficult to use evidence to inform programs, because of the lengthy time horizons for those studies and because they require a rigid "lock-in" of program design/model in order to draw conclusions about design features. Prioritizing experimental findings actually decreases the chance that evaluation will be useful on the ground for program design – or that utility will come at a much slower pace.

19. *To what extent should evaluations specifically with either experimental (sometimes referred to as "randomized control trials") or quasi-experimental designs be institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?*
From LISC's perspective, institutionalizing evaluations within programs would likely prove costly and siphon program time and energy from actual program delivery. Even if data collection is always in place for the treatment group, programs will have to incur the cost of finding a reasonable comparison group and implementing data collection. For example, in the social impact bond and Pay For Success context, results of the embedded experimental evaluation provide the basis for valuation of returns to the capital investor. This structuring is accompanied by large transaction costs.

Using experimental or quasi-experimental designs as the standard for evidence based policy rules out interventions that work at a unit of analysis that are too big for reasonable control groups to be assembled given standard statistical assumptions. If the impact is projected for individuals, then experimental designs make sense. If the impact is happening at the neighborhood level, which is the case of a lot of LISC's investments, then the logic of experimental or quasi-experimental design is much less applicable.

CLOSING
Thank you for the opportunity to weigh in on these important issues. Please contact Nicole Barcliff, Sr. Policy Officer at nbarcliff@lisc.org or (202) 739-9296 if you have any questions or if LISC can serve as a resource to the Commission.

PUBLIC SUBMISSION

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0206
Comment on FR Doc # 2016-22002

Submitter Information

Name: Stefanie Fuhr

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

Please leave my children be. There is no positive reason that you would need their information.

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.
The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.
In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of

"D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.
I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.
Yours,
Stefanie Fuhr, Colorado

PUBLIC SUBMISSION

As of: August 04, 2017
Received: November 22, 2016
Status: Posted
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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0207
Comment on FR Doc # 2016-22002

Submitter Information

Name: Edgar Figueroa, MD, MPH
Address:
  New York, NY, 10034
Email: edfig99@yahoo.com

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.

In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors

but also their families and friends.

The US Department of Education has been found to have especially weak security standards in its collection and storage of student data, and received a grade of D for its security protections.

In addition, preK-12 student data currently collected by state departments of education that would potentially be shared with the federal government include upwards of 700 highly sensitive personal data elements, including students' immigrant status, disabilities, disciplinary records, and homelessness data.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from PreK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

As a physician we don't have national health records on patients - it's been frequently dismissed as intrusive and the harms of privacy breaches have been identified as very real. I see no difference with student records.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

Yours,

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0208
Comment on FR Doc # 2016-22002

Submitter Information

Name: Rosalie Friend

General Comment

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.

In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors but also their families and friends.

The US Department of Education has been found to have especially weak security standards in its collection and storage of student data, and received a grade of D for its security protections.

In addition, preK-12 student data currently collected by state departments of education that would potentially be shared with the federal government include upwards of 700 highly sensitive personal data elements, including students' immigrant status, disabilities, disciplinary records, and homelessness data.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from PreK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0209
Comment on FR Doc # 2016-22002

Submitter Information

Name: Joshua Seff
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   McKinney, TX, 75070-5815
Email: mv9508@sbcglobal.net

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.

In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors

but also their families and friends.

The US Department of Education has been found to have especially weak security standards in its collection and storage of student data, and received a grade of D for its security protections.

In addition, preK-12 student data currently collected by state departments of education that would potentially be shared with the federal government include upwards of 700 highly sensitive personal data elements, including students' immigrant status, disabilities, disciplinary records, and homelessness data.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from PreK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

PUBLIC SUBMISSION

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0210
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I understand your goal is to identify ways in which the collection of unit record data can be expanded while overcoming challenges to its potential for privacy violation. The purpose for my comments is to persuade you that the collection of data for any use outside of its original explicit intended transactional use should be abandoned entirely. To that end, please consider the attached statements of both fact and opinion. Thank you.

Attachments

Comments online to CEB re Unit Record Data 11.2016

https://www.regulations.gov/comment?D=USBC-2016-0003-0001

I understand your goal is to identify ways in which the collection of unit record data can be expanded while overcoming challenges to its potential for privacy violation. The purpose for my comments is to persuade you that the collection of data for any use outside of its original explicit intended transactional use should be abandoned entirely. To that end, please consider the following statements of both fact and opinion:

Outside of family, there are perhaps two relationships compare in their intimacy, and trust: those we have with our doctors, and with our children's teachers. There is an implicit acceptance of the trade we make with each of these people. We share information with our doctors that we may not even tell our spouse, in exchange for his or her promise to use it for our benefit. Teachers, who by definition are with our children for a third of their waking hours, get to know them very well indeed. They know when they're tired, happy, distracted, upset, or bored. They also know where they are academically strong, and challenged. We trust that the teacher will use their knowledge and understanding of our kids to help them be their best, both socially and academically. When intervention is warranted, we trust the teacher's guidance and more often than not, support his/her recommendations in the best interest of our children.

That is the implicit agreement. We agree to divulge, and be vulnerable. They agree to use what they know about us to help us, and only us.   There never was an agreement - implicit, explicit, or otherwise - to turn these private relationships into Petri dishes for state and federal government. And yet it was done, and continues to occur. My concerns and recommendation are as follows:

1. Access to data doesn't give state or federal government any natural, implicit or explicit rights to use it in any way outside the purview of the transaction that originally generated it
2. Government has collected data about its citizens, but not in the abstract and certainly not by disclosing its eventual use for analytics, or targeting, by the government.
3. The data government has collected was a by-product of transactions with citizens over time, which are either required by law or necessary in order for citizens to utilize privileges awarded exclusively by government – i.e., tax returns, voting, drivers licenses, passports. In every instance, the citizen's only option was to supply the requisite information.
4. If compliance with the information requested in all these transactions was 100% voluntary, participation would unquestionably fall short of 100%. Therefore, the government cannot rationally argue, after the fact, that the data it acquired was relinquished voluntarily in the first place. If given a choice, a substantial percent of the population would limit the data they give to the government.
5. If given the choice, a substantial percent of the population would limit the data they give to the government. So, if the information that has already been provided was done so only because it was required in order to complete a transaction, how can the government now expand its intended use above and beyond its original permission? Furthermore, how can it justify keeping and using it for multiple and as-yet undefined applications, while at the same time removing the

law requiring the owner of the data to provide written permission for each explicit use of the data? (FERPA Executive Action 2011).

6. Poor awareness, or lack of understanding by the public of the implications of this Commission's goal, is no excuse for ignoring common sense. And common sense suggests that if 100% of the population understood the initiative, and it was given ample public debate, most of the population would disapprove.

7. The continued expansion of citizen databases has far-reaching implications for every single person in America. Longitudinal studies of students at the federal level are reminiscent of a post-WWII Germany in which students were channeled into aptitude-indicated careers whether they liked it or not. Overlays of public and private data including parents' education, religion, voting history, medical history, employment history, ethnicity, beg the question to government to justify this massive theft of their privacy.

8. A central database with no accountability to the owners of the data is an invitation to corruption. For example, let's say an administration decides to overlay carbon footprint onto each household in the country. Individuals could then be targeted based on suppositions like how many cars or appliances they own, square footage of their homes, gas consumption. Or perhaps an individual of Mexican descent has voted outside the majority of his ethnicity. A federal government could siphon off his information to either political party for direct targeting. Last, it is determined that a student whose standardized test scores fall within two arbitrary numerical data points should be guided toward an Engineering college rather than a liberal arts school as he prefers. Does the student who agrees to study engineering receive the student loan, as the one who opts for liberal arts is penalized? The list of unfair, discriminatory, racist, political, financial applications of the data is infinite. This leads to my next point.

9. Government assurances of protections have become largely meaningless in the wake of revelations about data abuse at the highest levels. The IRS broke privacy laws when it admitted targeting 501C3 applicants based on their political affiliation. Aside from the resignation of its public face, no one was held accountable. The privacy disclosures which were written into law and considered sacrosanct were eviscerated with the stroke of a pen (FERPA, Execution Action, 2011). External hacks by other nations into government agency databases, and high-level government employees' emails. All of these examples and more have revealed what is logical and true – that data is never private; that laws are ignored and broken without retribution; that a central repository of data as vast and deep as you are considering will become an instant target for a multitude of unknown assailants with greater data theft capabilities than you can know of today, and unimaginable nefarious intentions. If this risk is even infinitesimal, which it is not, then why would the government do it?

Government's role is to protect its citizenry, not analyze it, target it, or try to affect its behavior based on what it knows about individuals. The continued pursuit of this entire project is essentially a theft, and a massive flip of a finger to whatever remains of public trust in its government. I urge you to recommend that the entire database objective be abandoned entirely. Only in that end will you have done your absolute best for the American people.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0211
Comment on FR Doc # 2016-22002

Submitter Information

Name: Joseph P. Bottini

General Comment

Stop! Anything that controls the life and personal information of a child is ludicrous in a Democratic Republic. This makes a cloud gathering of students data dangerous to the well being of our culture.
No Child Left Behind, Race To The Top and Common Core are among the disastrous programs that have been fostered upon local school districts by the government.
A "one size fits all education fits no one."
National blanket requirements of instruction and learning models are educationally unsound and fundamentally detrimental to children.
The 10th amendment to the United States Constitution dictates a federal/national education department unconstitutional/illegal.
I have arrived at the above opinions based on 35 years a public school teacher and 8 years a local Board of Education member.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0212
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of

"D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,

D. Martinez, NYS, parent

PUBLIC SUBMISSION

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Received: November 24, 2016
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Posted: November 28, 2016
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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0213
Comment on FR Doc # 2016-22002

Submitter Information

Name: Tiffany Rios

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.

Our children need to be protected and not treated as data in a database. They are entitled to privacy too.

Thank You for your time.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0214
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Get out of the school system period. We don't like big brother looking over our shoulders and certainly NOT over the shoulders of our children. Common Core is an education buster not a boon! Everyone is NOT equal or the same when it comes to education.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0215
Comment on FR Doc # 2016-22002

Submitter Information

Name: Ilana Spiegel
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Email: ilanadspiegel@gmail.com

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.

In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors

but also their families and friends.

The US Department of Education has been found to have especially weak security standards in its collection and storage of student data, and received a grade of D for its security protections.

In addition, preK-12 student data currently collected by state departments of education that would potentially be shared with the federal government include upwards of 700 highly sensitive personal data elements, including students' immigrant status, disabilities, disciplinary records, and homelessness data.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from PreK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

Yours, Ilana Spiegel, Grassroots Education Activist

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0216
Comment on FR Doc # 2016-22002

Submitter Information

Name: Lisa Cohen

General Comment

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700

highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0217
Comment on FR Doc # 2016-22002

Submitter Information

Name: Stephanie Carver

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Sincerely,

Stephanie Carver
Minnesota

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0218
Comment on FR Doc # 2016-22002

Submitter Information

Name: Janene Hasan

General Comment

I am concerned that this data could be used for unethical purposes, no matter how good the intentions are in creating it. We must protect our children's privacy.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0219
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

As a citizen who had a forty-one year career in education as an early childhood edcuatro, I am deeply troubled by the intrusion by the federal government on the privacy rights of young persons not old enough to protect themselves. As such, I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database. There is truly no legitimate reason why the government needs to have access to much of this private student data.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the

personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

As an educator who had been tasked with protecting student private and confidential information from person(s) or group(s) not entitled to such personal information, I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Sincerely,

Mary E. Burnham

Cheshire, CT

Director of The Children's Center - retired
Educational Consultant - retired

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0220
Comment on FR Doc # 2016-22002

Submitter Information

Name: James Scanlan
Address:
   Washington, DC, 20007
Email: jps@jpscanlan.com

General Comment

COMMISSION ON EVIDENCE-BASED POLICYMAKING COMMENTS,
DOCKET ID USBC-2016-0003, QUESTION 16 (Nov. 28, 2016)

Attached are comments that follow up on comments submitted on November 14, 2016.
The earlier comments are available here:
http://www.jpscanlan.com/images/Comments_of_J_Scanlan_for_Comm_on_Evidence-
Based_Policymaking_Nov._14,_2016_.pdf

James P. Scanlan
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(202) 338-9224

Attachments

Comments for the Commission on Evidence-Based Policymaking (Nov. 28, 2016)

**COMMISSION ON EVIDENCE-BASED POLICYMAKING COMMENTS,
DOCKET ID USBC–2016–0003, QUESTION 16**
(Nov. 28, 2016)

Submitted by:

James P. Scanlan
Attorney at Law
1529 Wisconsin Ave., NW
Washington, DC 20007
jps@jpscanlan.com
(202) 338-9224

*These comments are a follow-up to comments submitted on November 14, 2016. The earlier
comments are available here:*
*http://www.jpscanlan.com/images/Comments_of_J_Scanlan_for_Comm_on_Evidence-
Based_Policymaking_Nov._14,_2016_.pdf*

Table of Contents

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These comments are a follow-up to my Comments for the Commission on Evidence-Based Policymaking[1] submitted on November 14, 2016. The instant comments discuss two recent matters that illustrate points in the earlier comments regarding (a) the failure of persons analyzing demographic differences in outcome rates to understand that relative differences in adverse outcomes and relative differences in the corresponding favorable outcomes commonly yield opposite conclusions about the comparative size of racial and other demographic differences at different points in time, among different populations/subpopulations, and with regard to different conditions and (b) the failure of federal government agencies, including the Departments of Education and Health and Human Services, to understand that reducing adverse outcomes tend to increase, not decrease, relative demographic differences in rates of experiencing those outcomes and the proportions groups most susceptible to the outcomes make up of persons experiencing them.

A. The Failure of the Scientific Community to Understand That Relative Differences in Mortality and Relative Differences in Survival Commonly Yield Opposite Conclusions About the Comparative Size of Demographic Disparities

At page 17 or the earlier comments, after presenting a number of examples of the pattern whereby the rarer an outcome the greater tends to be the relative difference in experiencing it and the smaller tends to be the relative difference in avoiding it, I stated:

> With only minor exception, the above patterns are utterly unknown in the law and the social and medical sciences. In fact, particularly with regard to infant and cancer outcomes, researchers will often refer to survival and mortality interchangeably, often stating they are examining relative differences in the former while in fact examining relative differences in the latter. They do so without recognizing the possibility, much less the likelihood, that the two relative differences will provide opposite results as to whether some demographic disparity is increasing or decreasing over time or is larger in one setting than another or with regard to one condition than another. See the Mortality and Survival page of jpscanlan.com.

A useful illustration of the failure of understanding in this area may be found in a study in the June 20, 2016 issue of the *Journal of Clinical Oncology* by Holowatyj *et al.* titled "Racial/Ethnic Disparities in Survival Among Patients With Young-Onset Colorectal Cancer."[2] The study was highlighted in a May 25, 2016 article on the National Cancer Institute (NCI) website by NCI staff titled "Survival Disparities Identified in Young African Americans with Colorectal Cancer."   The study was funded by Wayne State University and arms of the National Institutes of Health including the NCI.

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[1] To facilitate consideration of issues raised in documents such as this I include links to referenced materials in electronic copies of the documents. An electronic copy of this document is available by means of the Measurement Letters page of jpscanlan.com.

[2] Holowatyj AN, Ruterbusch JJ, Rozek L, et al. Racial/ethnic disparities in survival among patients with young-onset colorectal cancer. J Clin Oncol 34(18):2148-2156, 2012.

Notwithstanding the titles of the study and the NCI article describing it, the study analyzed racial/ethnic differences in cancer outcomes in terms of relative differences in mortality rather than relative differences in survival. And, as with probably every other published study of demographic differences in cancer outcomes – regardless of the measure employed – it did so without showing any understanding that whether one in fact analyzed relative differences in mortality or relative difference in survival could yield opposite conclusions about a demographic disparity much less that this would commonly be the case when overall outcome rates vary substantially.

The failure of understanding affected much the Holowatyj study's analysis. A variation on a near universal misunderstanding regarding the effects of generally reducing mortality on relative differences in mortality may be found in the study's first paragraph. After noting recent reductions in cancer mortality, the study states (at 2148): "However, racial disparities in survival rates have grown more pronounced." (Citations omitted).

The earlier comments and their references discuss the widespread notion that general reductions in mortality should reduce relative differences in mortality. The comments explain that, in fact, while general reductions in mortality will tend to reduce relative differences in survival, they will tend to increase relative differences in mortality (as is repeatedly observed in reality). In the case of the Holowatyj study, the word "however" in the quoted language suggests an expectation that general reductions in mortality should reduce relative differences in survival.[3] This is a correct expectation. But it would be an incorrect expectation as to the relative difference in mortality that the Holowatyj study in fact employs to measure racial disparities in cancer outcomes and that the references the Holowatyj study cites as showing increased disparities in survival also employed.

The Holowatyj study (at 2151) describes as novel a finding that racial differences in survival were most pronounced for among individuals with stage II and stage III cancers given that prior studies have found the greatest survival disparities among individuals with advanced stage cancers. Such finding was also highlighted in the NCI article.

I have not examined what the other studies in fact measured. But what the Holowatyj study in fact found – i.e., larger relative differences in mortality (not survival) for less advanced cancers – is precisely what one should expect in the circumstances given the higher overall survival (and lower overall mortality) among persons with less advanced cancers. In fact, the Holowatyj study's Figure 1 (at 2153) appears to show that, as one ought to expect in the circumstances, the relative difference in survival is larger for stage IV cancer for the less advanced cancers.

This is not to suggest that the data in Holowatyj study or its references will invariably comport with the patterns described in the earlier comments and their references.[4] But only with

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[3] A similar suggestion may be found in the statement in the Discussion section (at 2151) that racial disparities in survival "have actually worsened since 2000." (Citations omitted.)

[4] The study suggests that, contrary to the described patterns, the relative difference in mortality is greater for stage III than stage II cancer. That could reflect random variation of it could reflect something meaningful. Examples of

an understanding of those patterns will one be able to derive useful information, or draw sound inferences about processes and mechanisms, from such data.

The Holowatyj study, however, is merely symptomatic of the fact that in all likelihood not a single person analyzing racial differences in cancer outcomes – or funding, providing peer review of, or publishing analyses of such differences – is aware that relative differences in survival and relative differences mortality can (or typically will) yield opposite conclusions about directions of changes in disparities or regarding the comparative size of disparities as to different populations/subpopulations or as to different conditions.

But while research into disparities in cancer outcomes provides a striking example of the confusion in the analyses of demographic differences (like the extreme examples discussed at pages 34-35 of the initial comments), similar failures of understanding undermine virtually all analyses of demographic differences involving outcomes rates.

B. The Mistaken Belief That Generally Reducing Discipline Rates Will Tend to Reduce Relative Demographic Differences in Discipline Rates and the Proportions More Susceptible Groups Comprise of Persons Disciplined

A key point of Part I of the earlier comments involved the fact that federal civil rights enforcement policies regarding lending, school discipline, criminal justice, and employment are based on the mistaken premise that generally reducing the frequency of adverse outcomes would tend to reduce relative demographic differences in rates of experiencing those outcomes and the proportions groups more susceptible to those outcomes comprise of persons experiencing the outcomes. As explain in Part I and its references, exactly the opposite is the case. While reducing the frequency of an outcome tends to reduce relative differences in the corresponding favorable outcome, it tends to increase relative differences in rates of experiencing the outcome itself. Further, while reducing the frequency of an adverse outcome tends to increase the proportion groups more susceptible to the outcome make up of persons experiencing the corresponding favorable outcome (hence, reducing all measures of differences between the proportions such groups make up of persons potentially experiencing either outcome (the pool) and the proportions such groups make up of persons experiencing the favorable outcome), it tends also to increase the proportion such groups make up of persons experiencing the adverse outcome itself (hence, increasing all measures of differences between the proportions such groups make up of the pool and the proportions they make up of persons experiencing the adverse outcome).

The earlier comments also specifically recommended (at 46) that the Commission "recommend that Congress take all steps necessary to ensure that no federal law enforcement actions are based the belief that reducing the frequency of an adverse outcome tends to increase relative demographic differences in rates of experiencing the outcome or the proportion disadvantaged groups make up of persons experiencing those outcomes."

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observed patterns of relative differences in morality and survival with respect to different overall survival rate situations may be found in the Mortality and Survival page of jpscanlan.com and Tables 10 and 11 of "Measuring Health and Healthcare Disparities," Proceedings of the Federal Committee on Statistical Methodology 2013 Research Conference (March 2014)

A recent development highlighting this issue with regard to one of the areas where the misunderstanding of the effects of the prevalence of an outcome on disparity measures has some of its most pernicious consequence may be found in the August 2016 award of a $1 million grant from the Department of Education (DOE) and the Department of Health and Human Services (HHS) to the Technical Assistance Center on Positive Behavioral Interventions and Supports (PBIS) to implement the Pyramid Equity Project.   A document released by the Pyramid Equity Project in September 2016 titled "The Pyramid Equity Project: Promoting Social Emotional Competence and Addressing Disproportionate Discipline in Early Childhood Programs" (PEP fact sheet) reflects the belief, which has previously been expressed by DOE, HHS, and many other public and private entities, that generally reducing discipline rates will tend to reduce (a) relative differences between the discipline rates of groups with higher discipline rates and groups with lower discipline rates and (b) the proportions groups with higher discipline rates comprise of persons who are disciplined. The grant, which is focused on racial and gender disparities in preschool discipline, highlights both the failure to understand the effects of generally reducing discipline on measures of discipline disparities and the failure to recognize that racial disparities in preschool suspensions are seemingly large precisely because suspensions are rare in preschool. In fact, data cited in Pyramid Equity Project document suggest that a majority of school districts had no preschool suspensions.

The matter is explained more fully in a November 26, 2016 letter to the principal staff and consultants of the Pyramid Equity Project. The letter also urges the leadership of the Pyramid Equity Project to explain to the granting agencies that a central premise of the grant is the opposite of reality and to address with the funding agencies whether, in light of recognition of such fact, the agencies wish to reconsider the grant.

The suggestion that the Pyramid Equity Project address this issue with the funding agencies is entirely reasonable and involves actions that Pyramid Equity Project leadership, once understanding the statistical issues, ought to recognize as manifestly appropriate. It nevertheless warrants mention that there is something incongruous about a research regime where a citizen must explain to a federal grant recipient that a premise of the grant is false and urge the recipient to explain such fact to the granting agencies. Rather, federal agencies should understand these issues themselves before they issue grants. Thus, I suggest, there are compelling reasons for the Commission to follow the recommendation quoted above.

There are similarly compelling reasons for the Commission to follow the other recommendations set out at pages 45-46 of the earlier comments.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0221
Comment on FR Doc # 2016-22002

Submitter Information

Name: John Bestor

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

As a citizen who had a forty-one year career in public education as a school psychologist, I am deeply troubled by the intrusion by the federal government on the privacy rights of young persons not old enough to protect themselves. As such, I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database. There is truly no legitimate reason why the government needs to have access to much of this private student data.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

As a school professional who had been tasked with protecting student private and confidential information from person(s) or group(s) not entitled to such personal information, I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Sincerely,

John Bestor

Cheshire, CT

National Association of School Psychologists - Retired

Connecticut Education Association - Retired

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0222
Comment on FR Doc # 2016-22002

Submitter Information

Name: Chris S

General Comment

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.

In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors but also their families and friends.

The US Department of Education has been found to have especially weak security standards in its collection and storage of student data, and received a grade of D for its security protections.

In addition, preK-12 student data currently collected by state departments of education that would potentially be shared with the federal government include upwards of 700 highly sensitive personal data elements, including students' immigrant status, disabilities, disciplinary records, and homelessness data.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from PreK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

Thanks,
Chris S.
Des Moines WA 98148

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0223
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of

Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

PUBLIC SUBMISSION

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0224
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of

Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Thank you,

Laura Bowman

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0225
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

My comments in the attached document address the section on data infrastructure of the Commission's request, specifically questions 3 and 4 on data infrastructure.

Miron L. Straf

Attachment1_<Remarks to the Commission on Evidence-Based Policymaking>

Attachments

COMMISSION-REMARKS-30N

Remarks to the Commission on Evidence-Based Policymaking

The singular accomplishment the Commission could achieve is to provide responsible access by entrusted researchers to policy-relevant information that is now kept from them by confidentiality legislation and government agency practices. Doing so will enable data to be linked in innovative–sometimes unpredictable–ways to provide needed evidence of the consequences of public policies and the means to improve them.

Such access cannot be done by a data clearinghouse. No institution could house all the data that now flow in torrents from public and private sources. Restricting a clearinghouse to administrative data seriously hampers our ability to learn from vast resources of other data.

It cannot be done through controlled access in "data enclaves." That would prevent downloads and linkages to important data outside the enclave. Even where researchers can upload data files for linkages and analyses, such as through virtual data enclaves, many important sources of data may not be available to the enclave. Moreover, the results may not be accessible if they pose a risk to confidentiality. A repository of data on specific programs that is accessible to researchers can lead to many program improvements, but, to fully evaluate the consequences of policies and programs, additional data are often required.

It cannot be done by agencies offering to analyze their data with a researcher's model and providing only the results, not the data. This practice prevents researchers from making important, relevant discoveries by exploring patterns in data without a specific model in mind. Confirmatory data analysis is not the same as exploratory data analysis.

It cannot be done by altering or "de-identifying" data. That would impede, if not prevent, linkages and compromise the utility of the data.

It cannot be done by replacing the data with replicated or "synthetic" data. That would lose many characteristics of the original data, cast doubt on many findings, and limit discoveries.

It cannot be done by relinquishing control to individuals of what can be done with their personal data. That would seriously erode the utility of what data would be accessible. Although individuals may have the right to control their personal information, they do not have the right to control statistics and research findings derived from that information.

And it certainly cannot be done by requiring data to be used only for the purposes for which they were originally collected. That would eviscerate the value of data as a national resource.

How then can needed access be enabled while protecting the confidentiality of personal information? What are required are clear guidelines and enforceable standards that enable federal, state, and local government agencies to share data they currently do not with researchers for public policy purposes, including identification and description of societal conditions and the formulation, implementation, evaluation, and improvement of policies and programs.

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For this purpose, I suggest that the Commission recommend to the Congress and federal, state, and local agencies the following:

- **First, establish clear legal standards for researchers and institutions to have access to confidential data.**

    Put the onus of responsibility to protect confidentiality on researchers and their institutions. Make intentional breaches of confidentiality of government-collected information a serious offense with serious penalties. For unintentional breaches, require researchers to report them and to maintain the confidentiality of those so identified. Put both researchers and institutions at risk of losing federal grants and contracts for improper practices.

    As a first step in developing common legal standards that are clear, harmonize the many that now exist, for example, in the Confidential Information Protection and Statistical Efficiency Act, the Federal Information Security Management Act, the Health Insurance Portability and Accountability Act, and the Family Educational Rights and Privacy Act.

- **Second, for data released to the public, establish a standard of reasonable care not zero tolerance to avoid inadvertent identifications that breach confidentiality.**

    The standard should apply not only to researchers and their institutions but also to statistics agencies and other governmental units that release public-use data files. Zero tolerance can be a standard for the public release of personal information, but, for research and statistical data derived from the information, the standard must be to exercise reasonable care so that the risk of identification is very small. The utility of data for analysis is greatly increased for a very small risk of inadvertent identification.

- **Third, establish procedures for a researcher to become entrusted with confidential data.**

    Researchers should be authorized and their institutions accredited with high standards for access to confidential data. The standards should apply to facilities and practices to keep data secure. And the standards must require rigorous, effective training of researchers in the stewardship of confidential data.

    Taking care to safeguard confidential data is part of the ethos of science. As such, it must be part of the education and training of future researchers and become accepted practice at all research institutions.

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These remarks express the views of the author and are not intended to express the views of the Social and Decision Analytics Laboratory, Virginia Tech, or other organizations.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0226
Comment on FR Doc # 2016-22002

Submitter Information

Name: Chad Green
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General Comment

16. How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?

This question concerns the need to collect ongoing feedback from the environment in order to ensure the resilience of both the federal government and the ecosystems to which it is accountable (i.e., panarchy).

I am an internal evaluator located in the research office of a local school district in Northern Virginia. Lately we've found that policymakers are requesting shorter review cycles for improvement initiatives. Similar needs were reported in a national study of school districts conducted by the Directors of Research and Evaluation (attached, see findings on final slide; source: http://www.redirectors.org/recent-news-report-links).

This emerging shift to a short-cycle continuous improvement focus reflects the need to both capture innovative evaluation practices and formulate new policies to support their ongoing development. More fundamentally, I also see the importance of developing

flexible systemic structures of governance which are more responsive to today's societal challenges (i.e., "wicked problems").

How can government be more flexibly structured? One framework which I have found very useful over the years is the Competing Values Framework: http://www.valuebasedmanagement.net/methods_quinn_competing_values_framework.html . I view it as a meta-sensemaking tool because I can align many other frameworks with it. It can be used to manage program lifecycles and organizational functions, as well as to facilitate dialogue on preferences for organizational culture (e.g., centralized, decentralized, networked). For example, programs or offices within a government department can be assessed as a portfolio to ensure a healthy mix of entities across the four major models of organization: human relations, open systems, rational goal, and internal process.

Best,
Chad

Attachments

District Program Evaluation Study FINAL

Program Evaluation in School Districts

Martha Abele Mac Iver & Douglas J. Mac Iver
(With Robert Balfanz, Charlene Pryseski,
Jo Fennessey, & Vaughan Byrnes)

Everyone Graduates Center
Johns Hopkins University
April 2014

www.extension.org

Sites.temple.edu

Research Questions

- What is the capacity (human resources and training, technological capacity, data resources etc.) of Research and Evaluation Offices to conduct program evaluations? How does this vary by contextual characteristics? What are the technical and capacity needs for conducting program evaluations?

- What are the major barriers to acquiring timely program evaluation findings?

- To what extent are technological solutions seen as helpful in addressing barriers? To what extent are technological solutions being used?

- How does the evaluation environment and demand for evaluation vary across school districts? To what extent are there idea champions urging use of data and evaluation results to guide improvement efforts?

- To what extent are evaluations used in decision-making about improving district initiatives? What factors contribute to low levels of using program evaluation to inform decision-making?

Data Collection
(January – March 2014)

- Measurement of publically available program evaluation reports from district websites (Council of Great City Schools member districts)

- Surveys of Directors of Research and Evaluation in local districts

- Telephone interviews with a subgroup of invited survey participants

PROGRAM EVALUATION ON PUBLIC WEBSITES

Methodology

Each of the member districts of the Council of Great City Schools (CGCS) was selected for analysis:

- in 2004 (60 districts from previously conducted study)
- in 2014 (66 districts)
- 57 districts were CGCS members in both years

We counted how many program evaluation reports were posted by the 57 districts in each of those two years.

(Districts may have conducted program evaluations but not posted them online.)

Posting of Evaluation Reports, 2004 and 2014

Percent of Districts Posting Evaluation Reports

- Both years
- 2004 only
- 2014 only
- Neither year

26%

12%

21%

40%
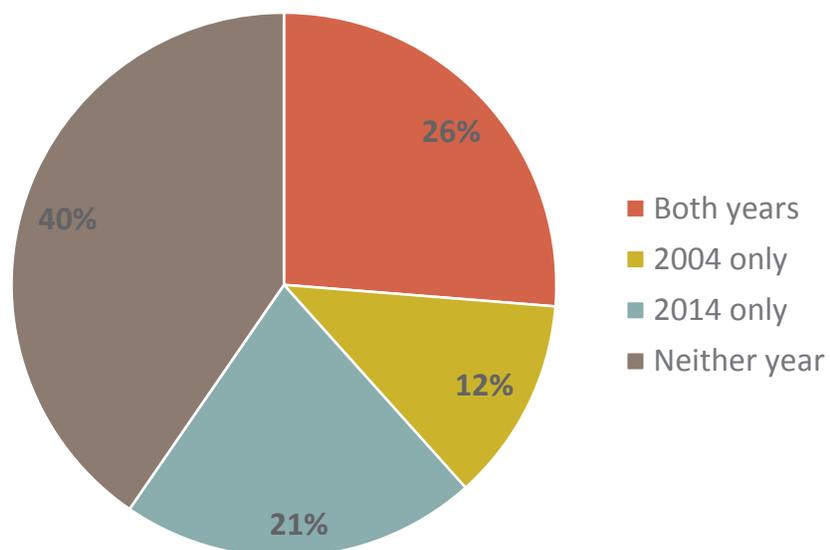
Overall Increase in
Posting of Reports

Of the 34 Districts with a posted report in either year

■ More reports posted in 2004   ■ More reports posted in 2014

32.4%   67.6%

CGCS Districts with More than 10 Program Evaluation Reports Posted in 2014 (Most to Least)

Austin, TX
Dallas Independent, TX
Houston Independent, TX
Albuquerque, NM
Philadelphia, PA
Jefferson County, KY
Broward County, FL
Palm Beach County, FL
Minneapolis, MN
Hillsborough County, FL
Los Angeles Unified, CA
Portland, OR
Miami-Dade County, FL
Denver, CO
Charlotte-Mecklenburg, NC
Clark County, NV
Charleston County, SC
Metropolitan Nashville, TN
St Paul, MN
Fresno Unified, CA
San Francisco Unified, CA

Most Active States in Posting District Evaluation Reports: TX, CA, FL

As in 2004, public posting of evaluation reports in 2014 was particularly prominent in:

- Texas (4 districts with at least one report)
    3 districts have roughly 300 or more each (from multiple years)

- California (5 districts with at least one report)

- Florida (5 districts with at least one report)

Surveys and Interviews

Research Participants

Directors of Research/Evaluation from all member districts of the Council of Great City Schools were invited to participate in the survey, together with other members of the Directors of Research and Evaluation (n=132).

A subgroup of these (n=26) were invited to participate in a follow-up telephone interview.

Response Rates

	Districts
Invited for survey	132
Responded to survey	75 (57%)*
Responded to most survey questions	61 (46%)
Invited for interview	26
Characteristics	Large districts from all over U.S., 24/26 members of CGCS
Scheduled interview	13
Responded to interview	13 (50%)

*Note: A few districts may have had multiple respondents.

Characteristics of Responding Districts
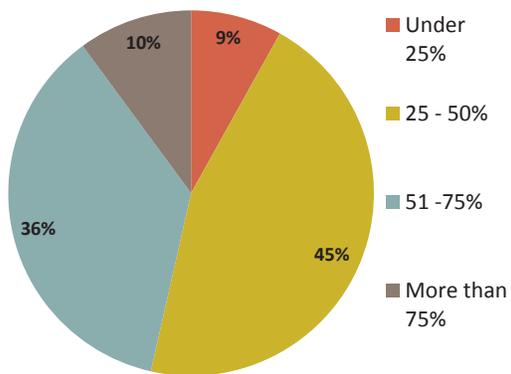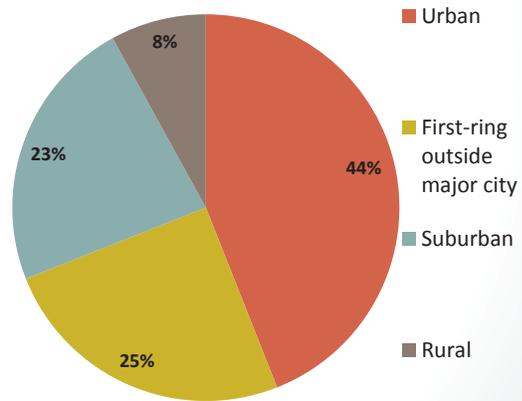
District Level Findings

Evaluation "Capacity"

Evaluation Products
- How many evaluations conducted?
- In what time frame?
- What types of programs evaluated?
- What designs used and types of data collected?

Human Resources
- Staffing
- Staff Training

Data Systems
- Data warehouse
- Linkage of student and teacher data
- Availability of program-related data

Number of Evaluations Conducted

- 85% (64/75) of the total respondents reported conducting a program evaluation within the past 2 years.

- Range of 0 to 50

- Mean of 8

- Median of 4

Types of Programs Evaluated: Curricular Programs Most Common

% of Respondents Mentioning Each Program Type	
Curricular Program...	89%
at elementary level	68%
at high school level	68%
at middle grades level	60%
at Pre-K level	38%
Program for ELL population	42%
Teacher professional development	40%
School reform initiative...	36%
secondary	32%
elementary	28%
After school program	34%
Dropout prevention program	28%
Mentoring program	23%
Summer school program	23%

Majority of Evaluations Took More than 9 Months to Complete

Percent of evaluations conducted in the last 2 years that took…

- less than 3 months to complete
- 3 to 9 months to complete
- More than 9 months to complete

16%

28%

56%
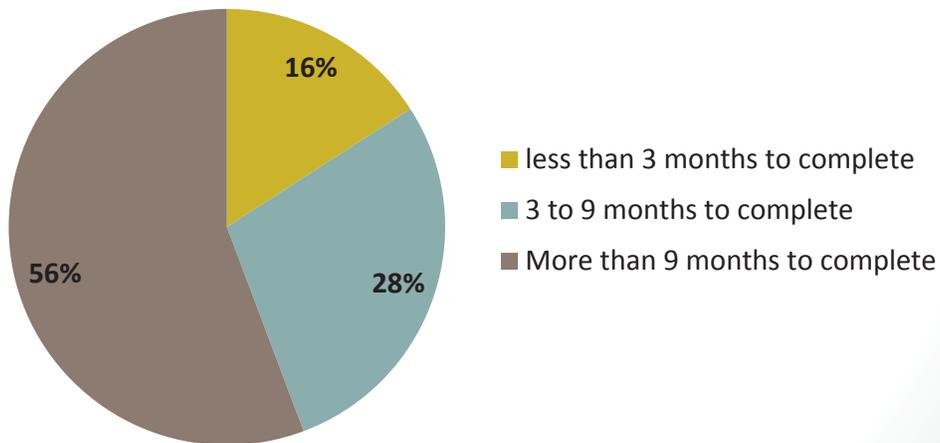
Analyses involved aggregating the total number of conducted evaluations reported, within timeframe categories

Evaluations Take a Long Time Because...

- Programs need to run their course over the year
- Collection of qualitative data for formative feedback (from interviews, observations, etc.) takes time
- Districts often interested most in the impact on the yearly high stakes assessment

Interview respondents think it unlikely that technology could speed up the process for many evaluations.

Districts may be open to more discussion about short-cycle continuous improvement efforts, but our interview respondents did not emphasize current district efforts in this direction.

Data & Research Designs Used in Program Evaluations

Did any of your program evaluations over the past two years:

Use student level outcome data drawn from multiple data systems	96%
Involve survey data collection	89%
Involve qualitative data collection (classroom observations, interviews, etc.)	78%
Involve online or electronic survey data collection	78%
Do Not Include a Comparison Group	71%
Rely on pre/post outcome measures without a comparison group	71%
Include a Comparison School or a Comparison Group	76%
Use comparison schools matched to treatment schools on demographics and/or prior outcome measures	64%
Use a matching method other than propensity score matching to identify a matched comparison group of students	42%
Use propensity score matching to identify a matched comparison group of students	40%
Use a regression discontinuity design	16%
Use random assignment of students to treatment and control groups	9%
Use random assignment of schools to treatment and control schools	7%

Percentages represent % of respondents checking the response. Districts conduct multiple types of evaluations, both with and without comparison groups. Rigorous methods to identify comparison groups are much less common.

Most Districts Report At Least One Externally Conducted Evaluation

How Many Program Evaluations Were Conducted for the Respondent's District by External Research Groups In Past 2 Years?

- Zero
- One
- Two or Three
- Four or Five
- More than Five
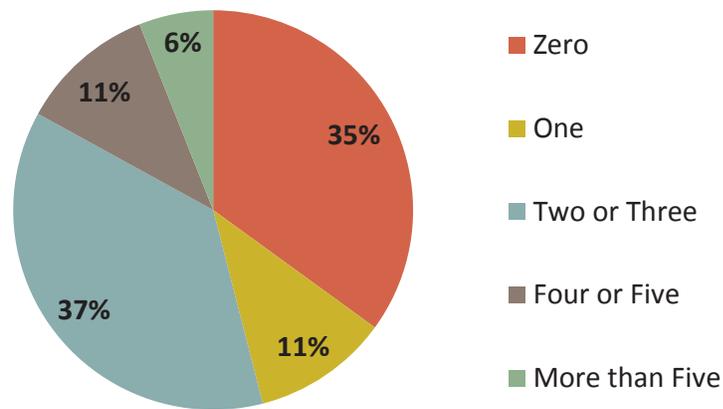
Funding for External Evaluations Comes Primarily from Sources Outside the District

Sources Used to Fund These Evaluations

- **External Evaluation By Grants Alone** — 45%
- **External Evaluation By District Sources Alone** — 33%
- **External Evaluation By Combining District Sources and Government Grants** — 18%
- **External Evaluation By Combining District, Government, Foundation, and Corporate Sources** — 5%
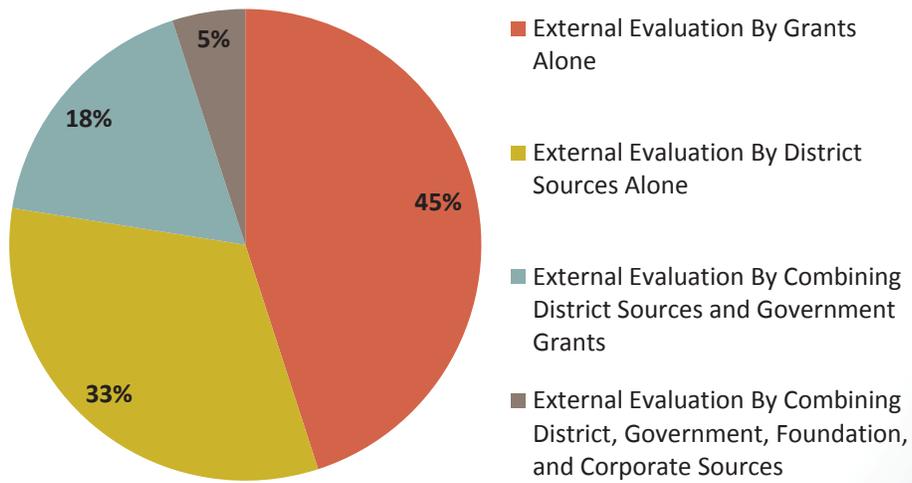
Staffing in Research & Evaluation Offices Related to District Size

- District size is a strong predictor of the size of its Research and Evaluation Office (β=.67).

- The largest districts (more than 100,000 students) averaged more than 6-10 staff members.

- The next largest districts (50,001 to 100,000 students) averaged about 6-10 staff members.

- Most of the staff in research and evaluation offices devote at least part of their time to duties other than program evaluation (such as generating school by school accountability reports).

- Supplementary analyses reveal that research and evaluation offices with more than 3 staff members typically have at least one staff member who focuses exclusively on program evaluation. Large research and evaluation offices (with "more than 10" or "more than 15" staff) typically have 3 or 4 staff whose full-time focus is on program evaluation.

Research & Evaluation Staffing Varies Considerably

How many total staff members do you have in your Research and Evaluation office?
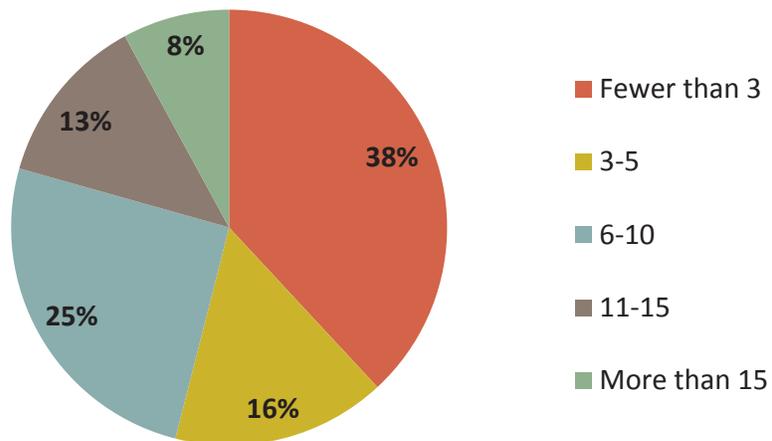
Majority of Districts Do Not Have Full-Time Evaluation Staffing

About how many of these staff members are devoted full-time to program evaluation?
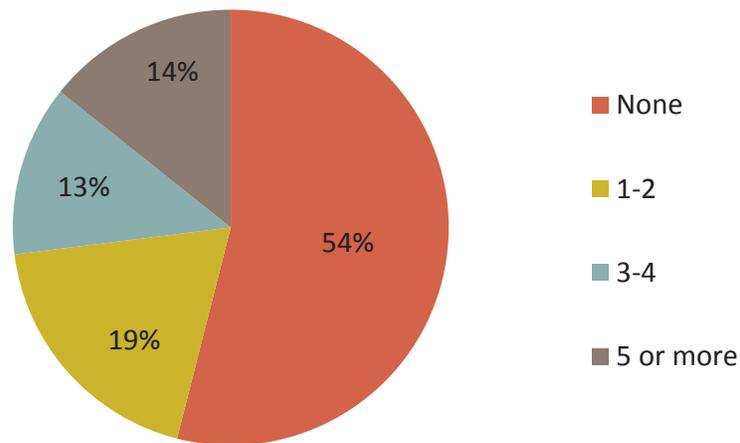
Graduate Level Evaluation Training Relatively Widespread among Districts

About what percent of your professional research and evaluation staff members have graduate level training in conducting high quality evaluations?
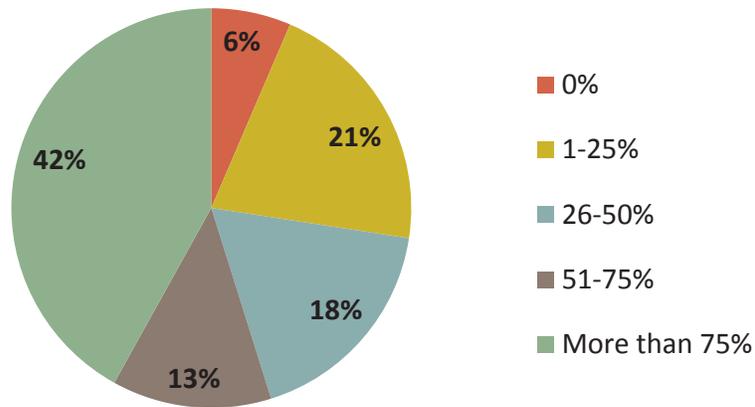
Professional Development Needs Greatest in Advanced Statistical Methodology

The Six "Most Pressing" Professional Development Needs Related to Program Evaluation
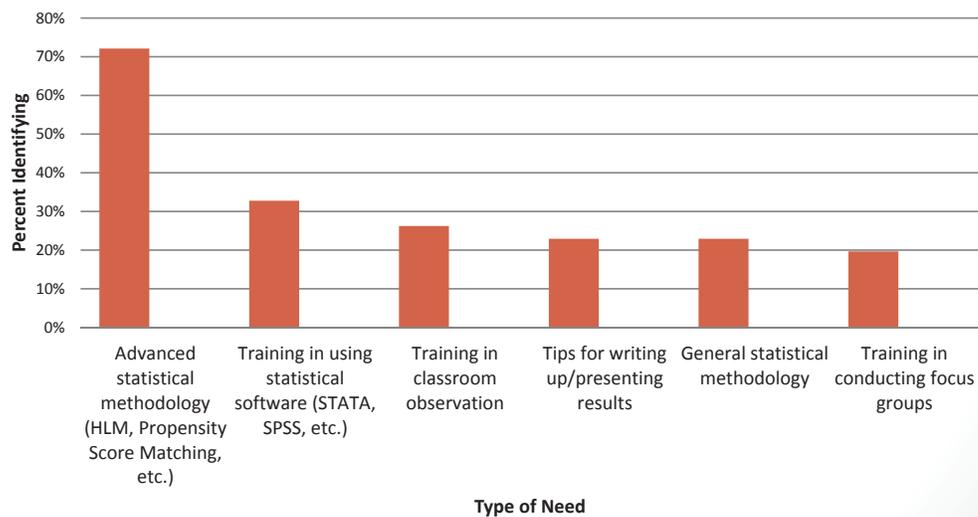
Data Warehouses Common

Percent of respondents reporting:

- ■ Multiple sources of student level data available in a single warehouse
- ■ Data warehouse in process but not complete

- ■ No data warehouse

| 66% | 31% | 3% |
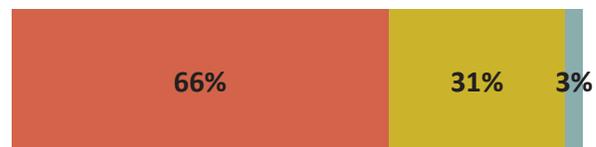
But Linkage of Student and Teacher Data Could Be Improved

To what extent is student level data linked to teacher data in your district data files?

- Linked but requires extensive roster validation and/or data processing
- Well-linked to teacher identification number only
- Student data well-linked to teacher-level variables
- Not at all

48%
25%
16%
11%
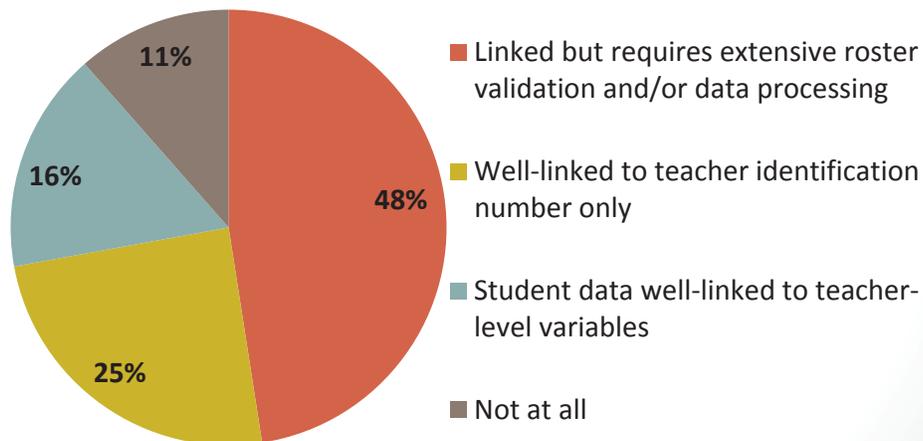
Limited Availability of Program Data

To what extent are the following types of student level data available electronically in your district?

Current and Projected Usages of Technology in Program Evaluation

Aspect of Program Evaluation	Current Use of Technology Solution		Projected Use of Technology Solution	
	Use off-the-shelf technology	Use custom-created technology	Do not use a technology solution (but WOULD use, if we had one)	WOULD NOT use a technology solution for this
To catalog available programs or interventions	17%	17%	50%	15%
To gather qualitative outcome data	13%	17%	48%	21%
To efficiently analyze qualitative outcome data	21%	19%	48%	12%
To identify valid comparison cohorts	18%	30%	38%	14%
To track program or intervention attendance/dosage	21%	40%	34%	6%
To track program or intervention enrollment	24%	39%	33%	4%
To identify or flag students or staff for a particular intervention or program	26%	42%	28%	4%
To de-identify or anonymize data to protect data privacy without impeding the informative analysis of student-level records	36%	44%	16%	4%
To link student data to teachers and/or to school-level characteristics	40%	42%	15%	2%
To evaluate the outcome results of a program and explore detailed outcome data from aggregate results	46%	35%	12%	8%

Most Are Hopeful about Usefulness of Technology Solutions – But Only Somewhat

To what extent do you think technology could be helpful in addressing barriers to acquiring timely program evaluation findings?
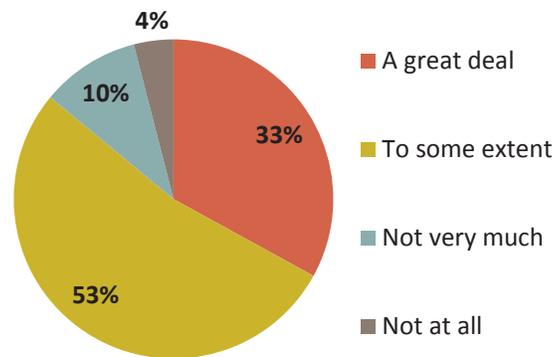
General Data Needs with Potential Technology Solutions

Findings from Interviews

- Need good ways to visualize data (some districts could use help in building dashboards)

- Some districts have data in different silos so that looking at relationships among variables difficult

- Problems with human data entry
  - takes lots of time
  - errors common
  - automation/technology would be useful

Program Evaluation Needs with Potential Technology Solutions

- Collecting/managing data on:
  - all district programs in various schools
  - program attendance/dosage
  - intervention details and/or process
    - For example, could technology help in coding/analyzing videos of classrooms?

In general, however, district respondents felt that the program evaluation needs were more related to organizational factors than potentially solvable through technology. Evaluations with useful formative qualitative data take time – and technology cannot really reduce the time required.

Evaluation Environment

- Who are the advocates of using program evaluation?

- To what extent do evaluation findings shape decision-making?

- Why do evaluation findings not influence decision-making as much as they might?

Superintendents and Leaders in Curriculum and Instruction Most Frequently Mentioned as Strong District Advocates of Evaluation

Which of the following would you say are strong advocates of using program evaluation in your district?
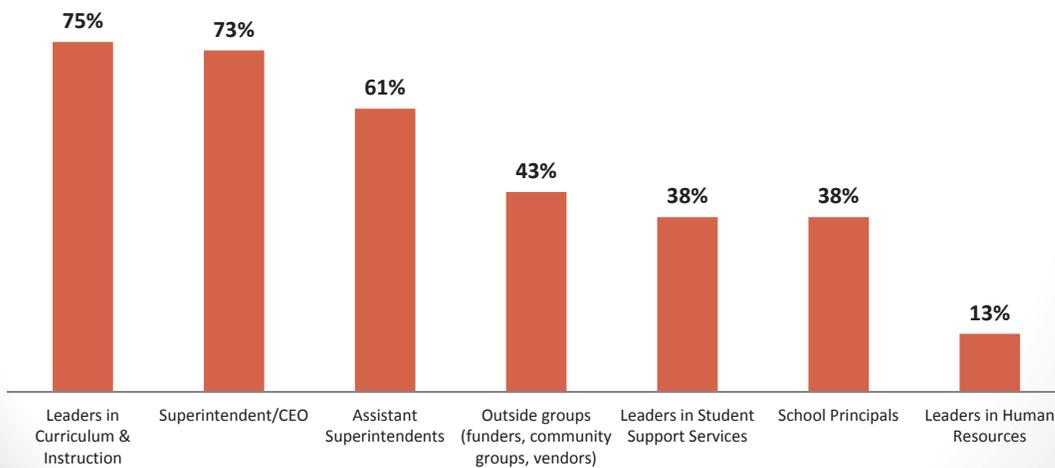
In Most Districts, Fewer than Half of District Leaders Perceived as Advocating Use of Evaluation to Guide Improvement Efforts

What proportion of leaders in your district office (excluding school principals) advocate the use of program evaluation results to guide improvement efforts?

- 0%
- 1-25%
- 26-50%
- 51-75%
- More than 75%
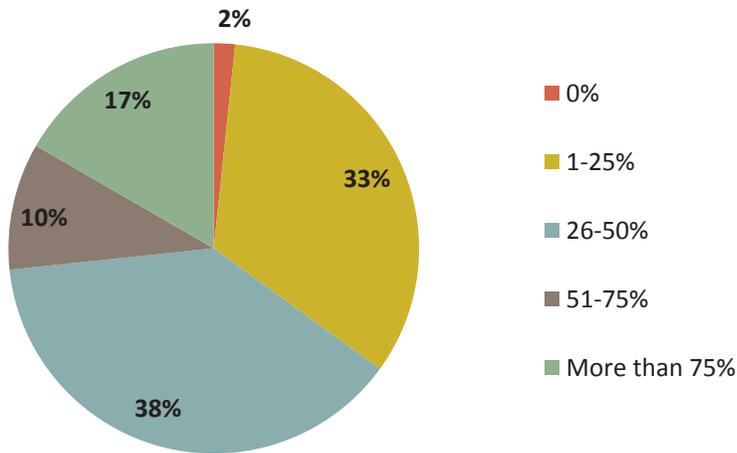
Evaluation Findings Influence Decision-making -- Somewhat

To what extent have program evaluation findings shaped district decision-making in the last two years?

- To a large extent
- Somewhat
- Not very much
- Not at all
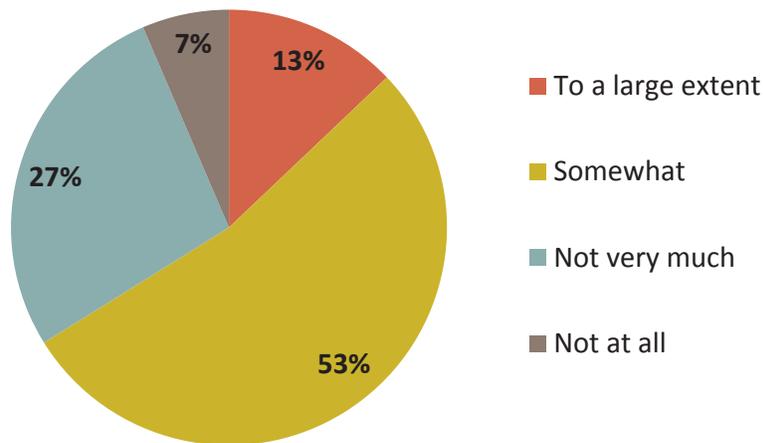
Reasons Why Evaluation Findings Have Not Influenced Decision-Making

Reasons Why Program Evaluation Findings Have Not Shaped District Decision-Making as Much as They Could Have (Multiple responses possible)

Political or financial considerations trumped evaluation findings	60%
Few program evaluations conducted	54%
Decisions had to be made before findings were available or findings not acquired in a timely enough way	46%
District leaders did not agree with evaluation findings	15%
Evaluation findings were not actionable	15%

Percent of Respondents (n=52) Citing Reasons

Related Finding: The number of evaluations conducted in districts is related not just to capacity, but also to the commitment of district leaders to learn from evaluation findings.

Interview Findings on Why Evaluation Influences Decision-Making Less than It Might

- Decisions need to be made before evaluation results ready (but respondents generally did not think technology solutions could make a significant impact on this)

- Pressure for decision-making does not allow many programs/interventions to run their course and have a chance to have an impact (Programs/interventions and assessments generally not aligned to a short-cycle evaluation approach)

- Some district leaders defensive and/or not open to negative evaluation findings

- Communication of program evaluation results to all stakeholders does not always occur and/or is not always clear

- Political and financial considerations often trump evaluation findings

Other Evaluation Environment Factors Related to Influence of Evaluation on Decision-Making

- Lack of a strategic plan or overarching approach to the use of evaluation in continuous improvement efforts raised by some districts

  - Evaluation occurs when required by funding sources, but not necessarily done for most important programs
  - Planning process does not take into account what is needed to ensure collection of data and evaluation results needed for informed decision-making

- This could be linked to high turnover in district leadership at top and middle levels, mentioned by many district respondents
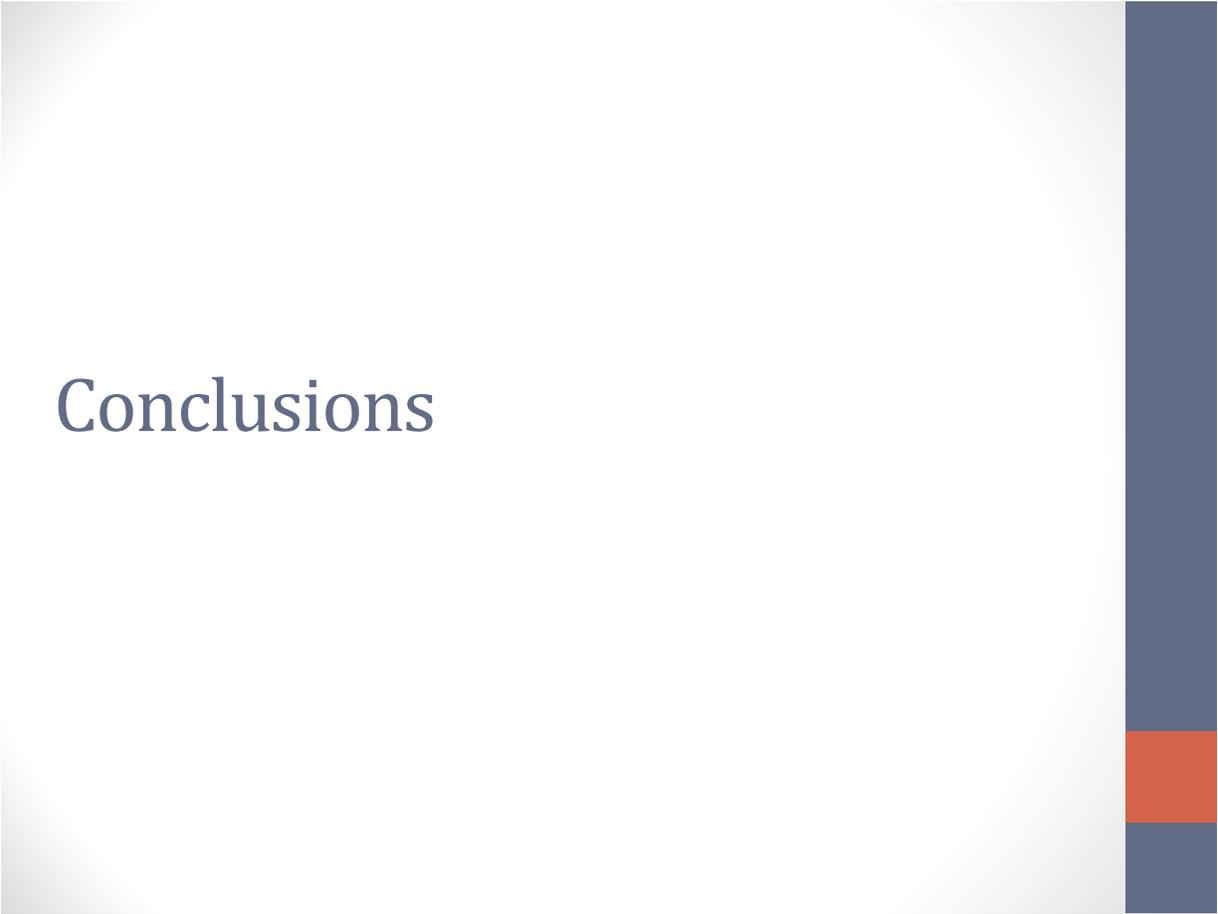
Conclusions

Moving from Traditional Program Evaluation to Include a Short-Cycle Continuous Improvement Focus

- District leaders are asking for findings before most traditional program evaluations can be completed.
- The term "program" has been traditionally associated with a multi-component initiative designed to be implemented over a period of time and aimed at broadly improving a global outcome (e.g. literacy, high school graduation, supporting ELL students etc.).
- As a result, district evaluation efforts have typically focused on conducting a small number of longer evaluations rather than a short-cycle improvement process that focuses on discrete interventions and their impacts or the impact of larger programs on leading indicators.
- Districts and states are only in the very early stages of thinking about a short-cycle continuous improvement process and how to organize data collection and analysis to support this.
- More focused collaboration among district leaders about such a short-cycle improvement process would be productive.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0227
Comment on FR Doc # 2016-22002

Submitter Information

Name: Elizabeth Jordan
Address:
   Bethesda, MD, 20814
Email: ejordan@childtrends.org

General Comment

See attached file for comments from Child Trends

Attachments

Child Trends response to Request for Comments Evidence-Based Policymaking

**Response to Request for Comments for the
Commission on Evidence-Based Policymaking**

December 2, 2016

Child Trends
7315 Wisconsin Ave, Suite 1200W
Bethesda, MD 20814
www.childtrends.org

Introduction

On behalf of Child Trends, a nonpartisan, nonprofit research organization focused exclusively on improving the lives and prospects of children, youth, and their families, we would like to extend our thanks to the Commission on Evidence-Based Policymaking and its Commissioners. We appreciate their attention to such an important issue and the opportunity to participate in that conversation. We are pleased to see and hear so much support for developing and supporting evidence-based policymaking in the Commission's meetings and hearings and look forward to reviewing the resulting report in 2017.

Child Trends brings 37 years of experience conducting research about children, families, and the programs that serve them. A major component of our work involves building an evidence base around "what works" for our most vulnerable children and families. Our staff of over 120 researchers brings a wealth of methodological experiences that we draw from for these comments: from implementation studies, to conducting multi-year randomized-controlled trials, to technical assistance for state and non-profit leaders, to linking and analyzing state administrative data, to incorporating big data in our analyses.

With this experience in mind, today we provide responses to questions 7, 10, 15, and 16, the questions that are most relevant to our daily work. We would be happy to provide additional details or submit answers to other questions if it would be helpful to the Commission.

7. What data should be included in a potential U.S. government data clearinghouse(s)? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

To have a comprehensive federal data clearinghouse, it is essential to incorporate available data on children and families. In 2016, the federal government will spend $309 billion on children.[1] This constitutes a significant investment in the public's money and supports a broad range of programs and services for families to support their health, education, nutrition, and other needs. Although a significant investment, the need is also great. Policymakers require high-quality and timely data to ensure that funds are used in an efficient manner, and that as many children as possible receive the services that will yield the best possible outcomes. To provide policymakers with the type of rich information they need to make decisions, data must be readily available and regularly analyzed.

Creating a federal clearinghouse of data would overcome one the major obstacles that researchers and policymakers face now in using federal data: the "siloed" nature of data. Currently, data are housed in different agencies or warehouses by program or information on one family is located in several different data systems. Without access to multiple datasets, we can only tell a limited story about children and families – the story of their involvement in a particular program or service. For example, we may know much about the numbers, demographics, and service utilization of children in the child welfare system. However, without linking to other data, we cannot know if one family receives duplicate services, or if families access multiple programs. We also cannot link service receipt to long term outcomes in other areas such as education or justice. We are unable to paint a clear picture of what is happening to families in a single system or how to most efficiently and effectively serve them.

Much work must be done to ensure that the data in the federal clearinghouse is as useful as possible. From our work, we specifically recommend the Commission consider the following:

- **Establish guidelines to ensure data quality** so that researchers, policymakers and the public have confidence in the information gleaned from the clearinghouse. This includes making sure all those who enter the data are consistently defining data terms across states and communities and that data is collected in a timely manner. To achieve such high standards, states may need additional support and technical assistance to understand new requirement or terms.

- **Invest in training** to ensure a federal workforce is skilled in data analysis. Establish partnerships among federal and state agencies, universities, and researchers so that the data in the clearinghouse is fully used. Simply having the data will not be enough to inform policymaking. Data must be analyzed and incorporated into evaluations so that the information can better inform decision making.

- **Support convenings of various stakeholders to discuss how best to translate the research** into understandable and actionable information to shape decisions on programs and services. To provide raw numbers or technical analysis is not enough.

- **Identify and establish ways to link state and federal data** to maximize utility of the data. Currently the federal government holds only a fraction of the data on services and participants in services. A large portion of data needed to get a full picture of service provision

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[1] Children's Budget 2016. First Focus. Available at https://firstfocus.org/wp-content/uploads/2016/07/Childrens-Budget-2016.pdf

and participant outcomes for federally-funded programs are collected by state agencies. A federal-level data clearinghouse would need to either include state-held data or facilitate linkages between federal and state data to understand program outcomes. We recommend the latter. The Commission could make a recommendation on standardizing Memoranda of Understanding across state and federal agencies to share data, providing secure methods of linking data across datasets irrespective of whether they are federal or state, and having a shared data governance structure over administrative data held by the federal or state governments.

10. How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions"?

We recommend the Commission make federal administrative and survey data available to external researchers. The research community is broad. It includes universities, think tanks, professional research organizations, and other groups. Over the years, Child Trends and other independent organizations have interpreted various government datasets to shine a light on issues of importance to children and families. Our work, like that of others organizations, has long been valued by policymakers at all levels of government and across the political spectrum. This work has expanded the knowledge on evidence-based programs serving children and youth in areas such as child welfare, teen pregnancy prevention, bullying prevention, and poverty reduction.

External research organizations can provide a level of independence to the analyses and interpretation of the results that lends credibility to the findings.

15. What barriers currently exist for using survey and administrative data to support program management and/or evaluation activities?

As discussed above in our response to question 7, data quality (specifically clear and consistent data definitions for data entry and data timeliness) is a barrier to using survey and administrative data for program management and/or evaluation activities. Additionally, the Commission should be aware of the following challenges:

- **Access to data:** Researchers need streamlined processes to access data, while protecting data security. Currently, access to data can be an arduous process, taking months to years. To have research that is timely enough to support policy decision-making, researchers need swift access to data to answer questions before they are moot. Strategies like those of the National Center for Education Statistics or the National Center for Health Statistics, which set up secure access to data, may be useful for the Commission to explore.

- **Siloed nature of data**: As discussed above, data is currently siloed in one system or the other and at the federal or state level. Linking or connecting data is critical to answering the types of questions we need to inform decision-making.

- **Timeliness of data/evaluation:** Evidence-based policymaking and programmatic decision-making often requires data to be available and analyzed quickly to answer questions and respond to issues on a timely basis. Currently, accessing data is not a timely or efficient process. When programs are administered by local communities, there is often a natural lag between

when data are reported to the state agency, cleaned and prepared and then reported to the federal government. This process often can take multiple years so data currently available at the federal level may be years old (e.g. Medicaid or birth records). For more timely evaluations, researchers are often faced with negotiating data sharing with each individual state, which can take 6 to 18 months to secure an agreement.

- **Dissemination of research to policymakers**: In our work partnering with states and child-serving organizations, we have learned the importance of distilling and translating research into actionable information for use in policymaking and programmatic decision-making. However, researchers are incentivized to publish in peer-reviewed journals or lack funds to make research more broadly accessible. Organizations such as Child Trends can be effective partners in disseminating knowledge to policymakers and others who are making decisions on programs and services for children and families. .

16. How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?

Data and research must be a continuous part of policy and programmatic work. It is not as simple as conducting an evaluation at some static moment after a program gets up and running. Evaluation, research, and data are all parts of a process that begins as policymakers and community members identify a problem that needs to be addressed and continues throughout a program's life. Though discussed below as a linear process, our experience indicates the process of integrating research and evaluation into policies and programs is iterative and overlapping. The process may begin with a needs assessment using the most up to date administrative data to identify the issues faced by a community and population that is the focus of intervention efforts. It continues through intervention identification, using research and systematic reviews to identify available effective models. Implementing organizations often develop a theory of change and a logic model based on research and implementation science. A performance management system should be developed and data regularly collected so that program inputs, outputs, and outcomes can be tracked, reported and used for monitoring progress and continuous improvement. Research and evaluation may be used at multiple points in time to inform program design and implementation. Descriptive evaluations of participant outcomes and implementation can support high-quality programs through documenting activities and outcomes. Once a program is mature, impact evaluations may occur to determine if the program as a whole or individual pieces of the program are effective. Programs are all at different stages of implementation and need different types of research and evaluation support to guide evidence in their decision-making.

Research on the use of evidence in policymaking suggests leadership and staff use people and organizations they trust to learn about relevant research. Without trust and ongoing partnership, research often goes unused. Ongoing research-to-practice partnerships are one tool to ensure research and evaluation remains relevant, timely, and integrated to policy and practice.

The work of the Commission is exciting and has the potential to advance the adoption of evidence-based policymaking. To maximize these investments we hope the Commission will make sure data is fully accessible and available on a timely basis; fund training to improve data analysis and expertise among stakeholders; and encourage partnerships to ensure the wide application of the data to improve the efficiency and effectiveness of all government services and programs.

Conclusion

We would be happy to provide further information on any of these recommendations or address specific questions. Please feel free to contact: Elizabeth Jordan, senior policy analyst, Child Trends at ejordan@childtrends.org or 202-520-9090.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0228
Comment on FR Doc # 2016-22002

Submitter Information

Name: Steven Carnes
Address:
   Tea, SD, 57064
Email: stevesauto@iw.net

General Comment

It would take a team of 10 attorneys to decipher this written garbage. This is all about data sharing on our children and others, it is un-needed. I would like to know what special interest groups brought this pre-written garbage to you. Stop it already, do not pass this.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0229
Comment on FR Doc # 2016-22002

Submitter Information

Name: Melissa Aberle

General Comment

I urge this commission to use its power to strengthen local control of data,
meaning parental and teacher stewardship over student data, instead of
aiming to broaden the numbers of people with access to personally identifiable
student information to include government agencies and/or educational sales/research
corporations
such as Pearson, Microsoft, or the American Institutes for Research.
I urge this commission to use any influence that it has to promote safekeeping
of unit-record data at the parental and teacher level, where that authority rightly belongs.

Please protect the privacy of our children.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0230
Comment on FR Doc # 2016-22002

Submitter Information

Name: Elaine Simons

General Comment

Dear Commission on Evidence-Based Policymaking,

I love the American concept of voter-based, Constitution-based, elected representative-based, policymaking. It's why I live in America. In contrast to voter-based policymaking there is evidence-based policymaking, which I don't love because it implies that one entity's "evidence" trumps individuals' consent to new policy changes.

Former Secretary of Agriculture Ezra Taft Benson said something about education that also applies to educational data and policymaking:

"The best way to prevent a political faction or any small group of people from capturing control of the nation's educational system is to keep it decentralized into small local units... This may not be as efficient as one giant super educational system (although bigness is not necessarily efficient, either) but it is far more safe. There are other factors, too, in favor of local and independent school systems. First, they are more responsive to the needs and wishes of the parents and the community. The door to the school superintendent's office is usually open to any parent [or teacher]... But the average citizen would be hard pressed to obtain more than a form letter reply from the national Commissioner of Education in Washington, D.C."

Local control, and consent of the governed, are two foundational principles in our great nation.

Because the CEP is not an elected body, it does not hold authority to collect, or to recommend collection, of student-level evidence, or of any evidence, without written consent; and, for the same reasons, neither does the Department of Education.

Because the fifty, federally-designed, evidence-collecting, State Longitudinal Database Systems never received any consent from the governed in any state to collect data on individuals (as the systems were put into place not by authority, but by grant money) it follows that the idea of having CEP study the possible removal of barriers to federal access of those databases, is an egregious overstep that even exceeds the overstep of the State Longitudinal Database Systems.

Because federal FERPA regulations altered the original protective intent of FERPA, and removed the mandate that governments must get parental (or adult student) consent for any use of student level data, it seems that the idea of having CEP study and possible influence removal of additional "barriers" to federal use of data, is another egregious overstep.

As a mother of children who currently attend public, as a patriot who believes in "consent of the governed" and in the principles of the U.S. Constitution; I feel that my letter represents the will of many who stand opposed to the study of the removal of protective barriers on student-level data, which the CEP's website has outlined it will do.

I urge this commission to use its power to strengthen local control of data, meaning parental and teacher stewardship over student data, instead of aiming to broaden the numbers of people with access to personally identifiable student information to include government agencies and/or educational sales/research corporations such as Pearson, Microsoft, or the American Institutes for Research.

To remove barriers to federal access of student-level data only makes sense to a socialist who agrees with the Marc Tucker/Hillary Clinton 1998 vision of a cradle-to-grave nanny state with "large scale data management systems" that dismiss privacy as a relic in subservience to modern government. It does not make sense to those who cherish local control.

It is clear that there is a strong debate about local control and about consent of the governed, concerning data and concerning education in general. NCEE Chair Mark Tucker articulated one side of the debate when he said: "the United States will have to largely abandon the beloved emblem of American education: local control. If the goal is to greatly increase the capacity and authority of the state education agencies, much of the new authority will have to come at the expense of local control."

Does that statement match the philosophical stand of this commission? I hope not. Local control means individual control of one's own life. How would an individual control his

or her own destiny if "large scale data management systems" in a cradle-to-grave system, like the one that Tucker and Clinton envisioned, override the right to personal privacy and local control? It is not possible.

I urge this commission to use any influence that it has to promote safekeeping of unit-record data at the parental and teacher level, where that authority rightly belongs.

Sincerely,

Elaine Simons

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0231
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Based on Arnstein's ladder of citizen participation, this mechanism for providing feedback by the public would be categorized as level 4 consultation, a form of tokenism: http://www.citizenshandbook.org/arnsteinsladder.shtml .

To move up the ladder (level 5 placation), the 15-member Commission on Evidence-Based Policymaking would take steps to engage key stakeholders, such as from AEA and other VOPEs, in the decision-making process itself through the formation of subcommittees. Nevertheless, this step is only a more sophisticated form of tokenism. Level 6 (partnership), where power in the planning and decision-making process is shared, would be a more flexible organizational arrangement assuming the commission is authorized (and amenable) to playing this leadership role.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0232
Comment on FR Doc # 2016-22002

Submitter Information

Name: Frank Farrow

General Comment

The Center for the Study of Social Policy (CSSP) is pleased to provide comments to the Commission on Evidence-Based Policymaking. We appreciate the opportunity to participate in this important process and thank you for your consideration.

Attachments

CSSP Comments to the CEP
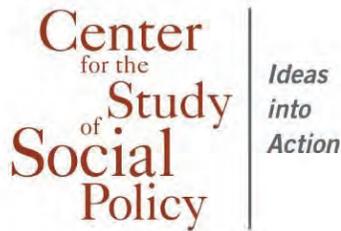
December 6, 2016

Re: Commission on Evidence-Based Policymaking Comments Docket ID USBC–2016–0003

Attention: Commission on Evidence-Based Policymaking

The Center for the Study of Social Policy (CSSP) is pleased to provide comments to the Commission on Evidence-Based Policymaking (hereafter, the Commission) regarding the use of data in program design, management, research, evaluation and analysis. We thank the Commission for focusing on the availability and use of government data in support of evidence-building activities related to government programs and policies as these practices have the potential to improve outcomes for vulnerable groups, particularly children and families. With limited public and private resources available, it is imperative that we use evidence to make decisions aimed at achieving better results, at scale. As such, we appreciate the opportunity to provide comment on this matter.

CSSP is a national policy organization recognized for its leadership in shaping policy, reforming public systems and building the capacity of communities with a focus on promoting racial equity and securing equal opportunities and better futures for children, youth and families. We are also the founding member of Friends of Evidence – a group of distinguished leaders across diverse fields, disciplines and sectors – concerned with the limitations of prevailing approaches to obtaining evidence and focused on defining and promoting more effective approaches to gathering and using evidence in support of better results. CSSP's policy positions are informed by our extensive experiences helping early childhood, child welfare and other public human services systems advance their work and achieve improved outcomes for the children and families in their care. Through our work over the years we've found that simply funding or implementing initiatives based on currently available lists of evidence-based programs will not achieve the goals we all share. Initiatives and their component programs must be implemented with a clear attention to measuring and understanding results, using that information to make well-conceived adaptations and mid-course corrections when initiatives fall short of achieving desired results and insuring that processes are in place for continuous learning and accountability to funders, taxpayers and service recipients.

Establishing a results focus and a rigorous approach to generating and applying credible evidence – through multiple techniques and methods and from multiple sources – should be institutionalized in program design and implementation. However, acceptable

evidence should not be limited to that derived from one methodology or one source of information. Experimental and quasi-experimental evaluation methodologies play an important role in building general knowledge, but they cannot provide the only information that is valued. In fact, rigor demands that an evaluation approach match the questions being asked. As OMB has stated, "Rigor is not restricted to impact evaluations." Therefore, rigorous and robust evidence requires an infrastructure is one that supports both internal mechanisms for continuous improvement that are aligned with external evaluation efforts. Yet creating this internal infrastructure often does not receive enough allocation of time and resources. Adopting a comprehensive approach to data gathering and analysis enables implementers to learn whether the selected program or the newly designed initiative is having the intended impact for the target population and allows others to understand how that impact is being achieved. Administrative data and surveys are two sources of evidence that should be employed, although not exclusively, in designing, implementing and evaluating policies, programs and multi-discipline complex initiatives. Findings from administrative data and surveys have the ability to reveal population needs as well as a particular practice or program's effectiveness with a target population. It also serves as a catalyst to making timely adjustments to improve practice or population outcomes.

The remainder of our statement will focus on the five questions addressed in the section of the Federal Register Notice on the use of data in program design, management, research, evaluation and analysis. We have organized the questions into two groups and will specifically address topics concerning (1) the importance and limitations of administrative data and surveys in improving policies and programs – questions 15 and 16 – and (2) incorporating evaluation into program design – questions 17, 18 and 19.

The importance and limitations of administrative data and surveys in improving policies and programs

Evidence generated from multiple sources is essential for policymakers, advocates and service providers to make decisions that will have the greatest impact on children and families. Administrative data and surveys should be employed in designing, implementing and evaluating policies, programs and complex initiatives. Administrative data in particular should be readily available to be regularly reviewed by the agencies collecting the data in a continuous improvement discipline as it can serve as a catalyst to making timely adjustments to improve practice or population outcomes.

However, too often there are technical and capacity barriers to using both administrative data and surveys as part of a continuous evidence-building process. This is because:

- Databases are incomplete, "siloed" and apply different definitions. In our experience assessing child welfare systems and the outcomes achieved, we can assert that on their own, federally financed child welfare administrative data bases often do not contain the information that would be most meaningful for assessing child and family well-being outcomes. For example, until recently at the federal level we could not say how often case workers visited children without reading and coding narrative records. Furthermore, we do not know how many of our

foster care youth are expectant or parenting, nor do we know the developmental or educational attainment of these youth in many states because the information is not captured in the administrative data. Finally, states do not consistently capture information about a family's housing needs, and the actual living conditions of "homeless" families often differs from the definition applied by the Department of Housing and Urban Development (HUD).[1] Therefore, child welfare administrative data often needs to be to be linked with other data bases – such as health care, education and homeless systems – in order to have a more complete picture of the child's needs and outcomes.

- Current child welfare data bases are typically not configured in a way to facilitate longitudinal analysis without the additional expertise needed to effectively link records – such as the work of the Chapin Hall Center for Children with the Multistate Foster Care Archive. These technical barriers make it difficult for initiatives aiming to improve well-being and track progress over time to have the knowledge base for effective decision-making. Furthermore, initiative managers sometimes lack the analytical skills to make effective use of available administrative data.

Free standing surveys produce point-in-time snapshots of perceptions and conditions, but can be a costly means of gathering information that can quickly become dated. In our work, one-time surveys are useful for learning directly from those affected about the problems to be addressed. However, unless surveys can be repeated over time at regular intervals with similar populations so that the results of multiple surveys can reveal trends, they will not be effective for assessing progress toward outcome achievement or be an efficient tool for jurisdictional-level continuous evidence-building and improvement operations.

The application of both administrative data and surveys requires statistical and analytical skills not always available within service delivery organizations at the state and local levels. An example where such skill building has been a focus is in New Jersey. The New Jersey Department of Children and Families (DCF) implemented a "Data Fellows Program" that provided 100 middle-management DCF staff with the opportunity to utilize administrative data to support improved case practice and outcomes for the children and families they serve in their areas or local offices all while developing analytical and presentation skills for management and decision-making, leadership, and team building.[2]

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[1] Currently, HUD considers a family to be homeless if they are living on the street or in a shelter and prioritizes services to chronically homeless populations. This excludes many homeless families and youth as they are often "doubled up" with other family members or friends or living in one-bedroom motels. For more information on definitions of homelessness, please refer to materials by First Focus regarding the Homeless Children and Youth Act of 2015.

[2] Initial funding for this program came from the Children's Bureau through the Northeast and Caribbean Implementation Center.

Incorporating evaluation into program designs.

Our work in systems reform and with place-based initiatives tackling complex and interdependent social challenges underscores the need for a broader evaluation focus – one that focuses more on systems and population outcomes across communities rather than on individual programs. It has also demonstrated to us the value of a culture of continuous learning and improvement as a means of reengineering systems[3] and creating greater opportunities for achieving equitable population outcomes. Before discussing specific methodologies, it is important to define the kinds of evidence that we think should be gained by incorporating evaluation and other measurement techniques into program design. The recent federal budget included a statement from OMB that offers the following definition, *"Broadly speaking, "evidence" is the available body of facts or information indicating whether a belief or proposition is true or valid."* OMB states that *"The best government programs use a broad range of analytical and management tools, which collectively comprise an "evidence infrastructure," to learn what works (and what does not) for whom and under what circumstances, as well as improve results."* We support this definition. Evidence is derived from several sources: program management and monitoring as well as formal evaluations that employ a range of data collection and analytical methods and research that have relevance to achieving the desired results. In addition, the rigor and credibility of evidence is not established by a single evaluation method. Rigor and credibility are determined by the use of multiple methods appropriately matched to what we want to learn and need to know.

Programs and complex initiatives, therefore, should be required to incorporate rigorous robust evidence-building mechanisms in design and implementation. The evaluation methodology should fit the purpose of the inquiry rather than a methodology driving the program design. Therefore, multiple evaluation methods and the application of multiple sources of evidence should be institutionalized in programs along with investment in key infrastructure components such as data systems, research expertise, and analytical skills that support an "evidence culture". To illustrate what we mean, we offer two examples of complex initiatives that are greater than the sum of bundled program components and are achieving improved outcomes for the populations they serve by using an inclusive and expanded approach to generating and applying evidence.

- *First, The Northside Achievement Zone (NAZ) is a collaborative working to close the achievement gap and end multigenerational poverty in a 13- by 18- block area on the north side of Minneapolis. NAZ brings together service providers, schools and families to move families through a cradle-to-career "pipeline" of supports for children from birth through college and ultimately career. From the design stage, NAZ has drawn upon multiple sources of evidence to steer and adapt its strategies and to create the interventions that address the unique needs of a particular community. It "fits the tool to the task," using different evaluation tools, including randomized control trials, for different purposes. It has created model systems, infrastructure and processes that regularly engage a broad group of stakeholders in*

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[3] See Jeffrey B. Liebman (2013) *Building on Recent Advances in Evidence-Based Policymaking*.

analyzing and using data to continually improve. NAZ has demonstrated significant increases in school readiness among the population it serves.

- *Second, The Carnegie Foundation for the Advancement of Teaching is nurturing a networked improvement community to address the extraordinarily high failure rates among the half-million community college students annually assigned to developmental math in the US. Failing developmental math can seriously derail a student from taking full advantage of higher education opportunities. Carnegie Math Pathways (CMP) is a multi-pronged strategy designed tackle this problem and employs improvement science to continually assess its progress, learn for whom the strategies are working and where and how the strategies are coming up short. CMP is being implemented by a network of college faculty, researchers, designers, students and content experts who work together, using both research and practitioner knowledge, to create a new system to increase student success in development mathematics. The multiple elements of this systems-level intervention include a re-designed curriculum, changes in the way remedial math classes are conducted, new ways of preparing students by changing attitudes about whether they can be successful at math and the development of support networks among students. Perhaps its most important single design feature is an ongoing, data-rich quality improvement effort. CMP has tripled the success rates of community college students in remedial math courses in half of the time it normally takes students to complete them. Moreover, CMP students consistently outperformed their non-CMP peers across 27 colleges that participated in CMP in School Year 2013-2014, despite the varying conditions and resources across these schools. The fact that these improvements have occurred for every racial, ethnic and gender subgroup and virtually every college participating in the initiative should give decision-makers the assurance they need about both the process and its impact.*

CSSP commends the Commission for seeking feedback regarding the availability and use of government data in support of evidence-building activities related to government programs and policies. We hope that the comments provided above help to inform the Commission's future activities and aids in the fulfillment of the Commission's duties. We thank you for your continued commitment to building evidence to continuously improve public programs and policies and strengthening evidence-building to inform program and policy design and implementation.

If you have any questions, please don't hesitate to contact Frank Farrow, (202) 371-1565; frank.farrow@cssp.org and thank you in advance for consideration of our comments and recommendations.

Sincerely,

Frank Farrow
Director
Center for the Study of Social Policy

PUBLIC SUBMISSION

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0233
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.

In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors but also their families and friends.

I urge you to strongly oppose the creation of any centralized federal data system holding

students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

If you decide to propose this centralized database of all children in our country, you need to have strong "OPT IN" requirements as part of this.

The federal government should not be in the business of collecting and tracking children through their lives. When they become adults, they can decide what data relating to their persons is appropriate for others to have.

The government should crack down on private companies compiling massive amounts of data on US citizens.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0234
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Stop the invasive, ubiquitous intrusion of private citizens lives. "Evidence-Based" and "Best Practices" are buzzwords used to justify top-down control. Individual Freedom is dead; you helped kill it.
Shame on all of you politicians, bureaucrats, think-tankers and researchers for agrandizing yourselves while enslaving the rest of us.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0235
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

Dear Co-Chairs Abraham and Haskins, and Members of the Commission:

Noting that you have extended the period for submitting comments to the Commission, I decided to review the comments you have received, including my own of November 1, 2016. Please forgive me for submitting a second comment.

The attached file comments on the challenges and goals facing the Commission in view of the inputs you have received.

Thanks for your service.

Paul E. Lingenfelter

Attachments

PEL Comment #2

PAUL E. LINGENFELTER
President Emeritus, State Higher Education Executive Officers

December 8, 2016

Dear Co-Chairs Abraham and Haskins, and Members of the Commission:

Noting that you have extended the period for submitting comments to the Commission, I decided to review the comments you have received, including my own of November 1, 2016. Please forgive me for submitting a second comment. I'll do my best to be brief.

My quick review of 220 comments submitted to the Commission found 158 comments submitted by the general public that were uniformly and often quite strongly negative. Many of these used identical or similar language, suggesting an organized effort, but I have no doubt that views fearing the loss of privacy and governmental intrusion into personal life are widespread.

The 62 comments (slightly less than 30% of the total) submitted by organizations or people with a professional interest in the topic, such as myself, were generally positive about the task of the commission, even though most had suggestions for improving governmental policy and practice. The gulf between the views of the general public and the "professionals" is striking. As one who believes the public good depends on evidence-based policy and practice, it is also disturbing. It is clear that all of us who seek to use data to improve human lives need to do a better job of using data effectively and demonstrating through our work that the way evidence is used is beneficial to individuals and society as a whole.

The Commission, as a bi-partisan, deliberative body, is well situated to make an important contribution. I respect the members of the Commission and the difficulty of your task, and I look forward to your report. Reflecting on my previous comments and those submitted by others, I believe it will be helpful if the Commission report:

1. *Articulates your own consensus on both the proper role of policy and its practical and ethical limitations in shaping practice in education, in medicine, and in other fields affecting individual lives.* Obviously, it is not easy to draw a bright line between governmental over-reach and a proper role for the federal government (or state governments) in supporting research and practice and in regulating or providing incentives to shape practice. But it would be helpful for the Commission to articulate principles to guide the drafting of legislation and administrative regulations.

2. *Articulates the differences and similarities between the use of evidence in practice and in policy, including: a) that both policy and practice need robust,*

commonly accepted measures, and b) that the data required to guide policy are much more coarse-grained than those required for practice. The creation of massive, fine-grained data sets on individuals at the national level or at the state level unavoidably raises concerns about inappropriate governmental use.

While longitudinal, individual data are essential for analyzing policies such as the impact of student assistance on participation, retention, and graduation, only a modest number of data elements are usually needed. For example, the much-maligned Department of Education proposal to create a student record data system for higher education included only 44 data elements. These data elements would have been sufficient for creating all the existing IPEDS institutional reports as well as meaningful state and national data on student enrollment, progression, and graduation. They would have been quite helpful in illuminating the impact of adequate or inadequate financial aid on student progress.

I agree with the private citizens who argue that there is no legitimate reason for detailed personal data on students (such as grades, disciplinary actions, etc.) to be in a data base accessible to people other than those directly responsible for assisting students in achieving personal educational goals.

3. *Specifies the techniques necessary to assure absolute privacy of individual data used in research and recommends legislation to mandate employing such safeguards, including significant penalties for violating them.* Although I am confident that it is possible to de-identify individual records while making them accessible for appropriate research, I know this is not a simple matter. These techniques need to be described in a way that builds confidence in the appropriate use of administrative data, and the public needs to see evidence that the research uses of data are beneficial at the same time that privacy rights are fully protected.

In making this recommendation I note that experience demonstrates that there will always be some potential for a breach of security in any database, public or private. But not collecting and using data is an unacceptable remedy. We simply need to constantly improve the tools for managing the problem. One tool is not collecting more data at high governmental levels than are needed to serve the legitimate purposes of government at that level.

4. *Acknowledges that complexity, variability, and human agency pose challenges for policy and practice that evidence may address, but can never entirely overcome.* Experience suggests it is generally impossible to obtain conclusive evidence about the effectiveness of any single policy or programmatic intervention across varying situations and circumstances. Evidence-based policy and practice should be conducted with humility, and programs or

policies should not be required to meet impossible standards of "proven effectiveness." At the same time, programs and policies should be required to collect evidence of effectiveness and use it for continuing improvement.

The difficulty the federal government has had in implementing its own policies for improving regulation (which are elaborated in the comment from the George Washington University Regulatory Studies Center) illustrates the challenges of evidence-based policy. The suggestions of the Regulatory Studies Center for addressing these problems reflect a good understanding of their complexity, without, in my view, offering a fully satisfactory solution. Ironically federal efforts to improve the effectiveness of regulation seem often to result in more red tape that further reduces the agility and adaptive capabilities of government.

Some people suggest that the difficulty of assuring the effectiveness of governmental policies and programs is, in itself, an argument against governmental efforts to improve the lives of citizens. While I am quite aware of the difficulties, the contributions of the state and federal governments to the quality of life in our country refutes this claim. The strength of the United States among the nations of the world is the result of freedom combined with the efforts of the national, state, and local governments to create through law and policy the conditions necessary for opportunity, fairness, safety, and security. We simply need to recognize that sophisticated, multi-faceted approaches (with checks and balances) have always been necessary for dealing with complex problems.

Thank you for inviting comment.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0236
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

The Cities for Financial Empowerment (CFE) Fund's mission is to leverage municipal engagement to improve the financial stability of low and moderate income households by embedding financial empowerment strategies into local government infrastructure. To this end, the CFE Fund provides grants and technical assistance to local governments and their partners. Simply put, evidence of effectiveness is critical to local governments: they need to allocate limited resources, their constituents hold them accountable for the quality of services, and local programs seek sustainability across changes in administration.

Please see attached document for the remainder of the comment.

Attachments

CFE Fund re Evidence Based Policy

Cities for FINANCIAL EMPOWERMENT Fund

The Cities for Financial Empowerment Fund

**Comments submitted to
the Commission on Evidence-Based Policymaking**

**Docket ID USBC-2016-0003
December 14, 2016**

Thank you for the opportunity to comment on strategies to increase the availability and use of government data to build evidence for programs and policies, while protecting privacy and confidentiality.

The Cities for Financial Empowerment (CFE) Fund's mission is to leverage municipal engagement to improve the financial stability of low and moderate income households by embedding financial empowerment strategies into local government infrastructure. To this end, the CFE Fund provides grants and technical assistance to local governments and their partners. Simply put, evidence of effectiveness is critical to local governments; they need to allocate limited resources, their constituents hold them accountable for the quality of services, and local programs seek sustainability across changes in administration.

The CFE Fund's theory of change rests upon evidence central to the concerns of municipal government: (a) financial instability drives up the demand for, and drives down the effectiveness of, municipal services[1]; (b) financial empowerment strategies can reduce financial instability and increase household resiliency[2]; and (c) integrating financial empowerment work into municipal services can make those services more efficient and/or effective[3]. We call this the Supervitamin Effect.

The success of the CFE Fund's first initiative, supported by Bloomberg Philanthropies, was built upon data. Our replication of Financial Empowerment Centers (FECs), through which free, professional, one-on-one financial counseling is integrated into public services to improve the financial stability of city residents, introduced hard data on performance and outcomes into a field hungry for proof. Professionally-trained counselors were held to measurable benchmark outcomes in helping FEC clients with reducing debt, building savings, establishing and improving credit, connecting to safe and affordable banking services, and more.

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[1] McKernan, Signe-Mary, Caroline Ratcliffe, Breno Braga, and Emma Kalish. April 2016. "Thriving Residents, Thriving Cities: Family Financial Security Matters for Cities." Washington, D.C.: Urban Institute.

[2] Theodos, Brett, et al. October 2015 "An Evaluation of the Impacts and Implementation Approaches of Financial Coaching Programs." Washington, D.C.: Urban Institute.

[3] For example, see Kleiman, Neil and Tom Hillard. November 2016. "Innovation and the City (Idea 12: Financial Empowerment Centers for Reentry." New York City: Center for an Urban Future.

That each of our five city[4] partners achieved sustainable public funding beyond the CFE Fund's three years of full program grants speaks volumes about the role of data in sustainable government innovation.

The FEC model is data-intensive: counselors collect detailed demographic and financial baseline information, track counseling session activity, and document financial outcomes. The strength of this data, in combination with client stories and testimonials, persuaded local agencies to partner with the FECs and persuaded city officials to invest in the FECs ongoing operations. In some cities, the FEC data became a benchmark for other public programs, which struggled to match it.

Beyond demonstrating direct counseling outcomes, data obviously plays a key role in demonstrating the Supervitamin Effect which goes to the heart of this request for comments. Within the first three years of the FEC initiative, we experienced multiple challenges in linking and combining FEC data with administrative data from government or government-supported programs. For example: few programs had the interest and/or capacity to negotiate data sharing agreements; metrics were differently defined; and client IDs could not be matched. In the long run, the bipartisan commitment to increasing the evidence base for government programs should create a culture in which such obstacles are considered unacceptable. To get there, the CFE Fund offers the following recommendations to the Commission.

Encourage federally funded programs, including block grants, to bake evaluation into program design, so that an early focus on data can contribute to appropriate data collection, data integrity, and data sharing. Even beyond evaluation's orientation to data, an evaluation mindset is a valuable support to good program design.

Support data linkage efforts, such as the Census Bureau's Data Linkage Infrastructure, that give evaluators access to administrative data in a manner that preserves the privacy of human subjects.

Synchronize federal program data structures, so that agencies running multiple programs can collect compatible data or even, ideally, use a single database to report to multiple departments.[5] Matching data structures would be a critical first step to confirming early evidence that addressing financial instability is crucial to program success.

Respectfully,
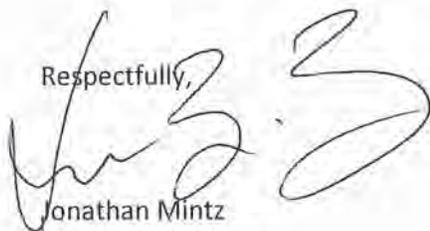
Jonathan Mintz
President and CEO

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[4] Denver, CO; Lansing, MI; Nashville, TN; Philadelphia, PA; and San Antonio, TX.
[5] For example, a community-based multi-service agency might use CounselorMax for HUD housing counseling, ChildPlus for HeadStart, and the Workforce Integrated Performance System for job placement.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0237
Comment on FR Doc # 2016-22002

Submitter Information

Name: Tom Gallagher

General Comment

See attached file(s)

Attachments

Comments_Docket_160907825-6825-01

State of Wyoming
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Matthew H. Mead
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December 9, 2016

Tom Gallagher
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Subject: Response to the "Request for Comments for the Commission on Evidence-Based Policy Making," Department of Commerce [Docket Number 160907825-6825-01] published in the Federal Register Vol. 81, No. 178, September 14, 2016 pages 63166-63168.

Labor Market Information (LMI) offices within State Workforce Agencies are major producers of high quality data and analysis in the nation-wide US Department of Labor (DOL) state/federal Bureau of Labor Statistics (BLS) and Employment and Training Administration (ETA) Workforce Information Grant (WIG) funded systems. State LMI offices use funding from ETA to produce industry and occupational projections, the principle source of occupational in-demand information intended to drive employment and training programs under the Workforce Innovation and Opportunity Act (WIOA). By seeking to amend the Wagner-Peyser Act to add LMI office consultation with the providers of services under the Carl D. Perkins Career and Technical Education Act, Congress also assumes that in-demand occupational information will be available to support employer need and career guidance requirements. Current re-authorizing Perkins language (H.R. 5587) includes appropriations of over $1.1 billion in Fiscal Years 2017 and 2018, climbing to $1.2 billion by FY2022. BLS resources sustain the statistical building blocks for state workforce LMI offices to produce most of the market demand information, or "evidence" used in guiding career choices for students, dislocated workers, returning veterans, and others as well as by those designing education and training curriculum. They achieve this goal, in part, through the use of administrative records from the Unemployment Insurance (UI) tax system.

A real barrier to these core data has been stagnating federal funding for these data collection and analysis activities through both BLS and ETA. States can use statewide set-aside funds under certain WIOA grants, but these and other major sources of funding for workforce programs have also stagnated, and competition for those funds is fierce.

State workforce agencies are typically comprised of Employment and Training (E&T), UI, and LMI offices. Located within these offices are E&T performance and UI quality control measures and sometimes, research and evaluation functions. (Frequently, other workforce services are also included in state workforce agencies.) Most state workforce agencies contain the WIOA administrative services for single state area delivery systems, or for sub-state self-governing workforce boards.

The purpose of this communication is to address the Commission's first question; "Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence building … the Commission should consider when developing findings and recommendations regarding Federal evidence-based policy making?"

The answer is that the state/federal cooperative statistical programs operated by the BLS have served the country and the states well for the past several decades. Cooperative agreements are designed to meet the mutual needs of the states and federal government and have done so since the mid-1980s. The system is known for its integrity and continuity of purpose. As a federal statistical agency, BLS attempts to meet required statistical standards and practices which include investing in state training and education, maintenance and updating program documentation, establishing security and confidentiality standards, and ensuring timely publication of statistics which hold the public sector accountable for its policies and actions while keeping the public informed about the outcomes of private sector market forces.

Slowness in adapting to change, recognize opportunities where major gains could be made for marginal investment, capitalize on state innovation, and the failure to fund state statistical infrastructure are chief among its failings. Funding for the states has remained basically unchanged with Federal Unemployment Insurance Tax Act appropriations remaining at $65 million for the past four years. A result is that BLS uses funds for state operations to modernize the IT system to maintain and upgrade cooperative agreement statistical programs.

Cooperative agreements work well to the extent that they are adequately funded and the states have the authority and organizational acumen to maintain a balance in the establishment of goals for the system.

ETA's WIG lacks the federal bureaucratic restrictions associated with a federal statistical agency. On the other hand, it creates the opportunity and provides the flexibility for innovation in state LMI operations in their attempts to meet state and local need for "in-demand" information. LMI offices accomplish this task through the use of products from the BLS cooperative programs such as the Occupational Employment Statistics estimates of employment and wages by occupation. However, while the demand for information grows, for example through programs to re-employ unemployment insurance claimants, WIG grant funds have remained at $32 million for the states during the past ten years.

In addition to nominal funding insufficient to meeting the bare minimum of state and local customer expectations, is ETA's lack of investment in infrastructure such as training for the E&T community in the use of labor market information. As a non-statistical agency, ETA lacks credible oversight and assistance to the states. Moreover, it has yet to demonstrate the capacity to integrate such program activity as WIOA program evaluation, which incorporates the role of understanding how the labor market works with such programs as the Workforce Data Quality Initiative, whose purpose is to support quasi-experimental design (in addition to producing descriptive statistics about the market) in WIOA program evaluation.

Despite the fact that both the cooperative agreement and WIG are programs administered by DOL, DOL exhibits little evidence of intentionally fostering a synergy between the two programs at either the state or federal level. With so many programs federally funded, but state administered, the Commission may want to explore implementing accountability systems that require state reporting directly to Congress on the performance of federal funding authorities.

Sincerely,

Tom Gallagher
Manager, Research & Planning

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0238
Comment on FR Doc # 2016-22002

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General Comment

I agree completely with Comment ID: USBC-2016-0003-0233

I could not express my concerns more perfectly. It is not the business of the federal government to compile records on its citizens, cradle to grave, or even higher education to employer.

The Office of Personnel Management hack, reported in July 2015, which compromised records of 22.1 million government employees and contractors, including security clearance files, is illustrative of the problem.

https://www.washingtonpost.com/world/national-security/chinese-hack-of-government-network-compromises-security-clearance-files/2015/06/12/9f91f146-1135-11e5-9726-49d6fa26a8c6_story.html

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0239
Comment on FR Doc # 2016-22002

Submitter Information

Name: Gerald Olson

General Comment

I am opposed to the additional information that this would gather on citizens which would only be an additional unjustified intrusion into the lives of Americans

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0240
Comment on FR Doc # 2016-22002

Submitter Information

Name: Cheryl Hartman

General Comment

I oppose the tracking aka womb to tomb tracking. Thanks you.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0241
Comment on FR Doc # 2016-22002

Submitter Information

Name: Ann Thanawalla

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.

In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors but also their families and friends.

The US Department of Education has been found to have especially weak security

standards in its collection and storage of student data, and received a grade of Devastating "D" for its security protections. What part of human safety and security matters to this commission?

In addition, preK-12 student data currently collected by state departments of education that would potentially be shared with the federal government include upwards of 700 highly sensitive personal data elements, including students' immigrant status, disabilities, disciplinary records, and homelessness data.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from PreK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation. This data is already being combined with city data via MOU's and city grants which conceal the third party access of aggregated data before the so-called "research data" funnels into the university stream. The cracks are wide and the cracks are deep. Data is also being shared with other countries, deepening the need for more stringent control, not less.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

Yours,
Chair of the Santa Monica Privacy Coalition, Santa Monica CA

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0242
Comment on FR Doc # 2016-22002

Submitter Information

Name: Bryce Ebeling
Address:
    Oceanside, CA, 92056
Email: bebeling@gmail.com

General Comment

I believe in informed consent and oppose non-consensual data mining. Stop the mining of our kids personal data NOW and forever.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0243
Comment on FR Doc # 2016-22002

Submitter Information

Name: Thomas Ultican

General Comment

I believe in informed consent. I oppose non-consensual data mining. Stop this madness. This looks like the road to tyranny.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0244
Comment on FR Doc # 2016-22002

Submitter Information

Name: Julie Behunin

General Comment

You are treading on sacred ground. You do not have the right or consent to continue obtaining information from minors, the parents need to give explicit consent. I am e-mailing Mike Lee and requesting his involvement in disbanding the CCE, as well as our President elect.

PUBLIC SUBMISSION

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Status: Posted
Posted: December 14, 2016
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Comments Due: December 14, 2016
Submission Type: Web

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0245
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I believe in informed consent. I oppose non-consensual data mining. Stop this immoral, unethical behavior.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0246
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I believe in informed consent. I oppose non-consensual data mining.Stop this madness.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0247
Comment on FR Doc # 2016-22002

Submitter Information

Name: Katherine Evans

General Comment

Comment by Katherine Smith Evans, Executive Director,
Council of Professional Associations on Federal Statistics
to the
Commission on Evidence Based policymaking

Disclaimer: This set of comments reflects my views and experience, but does not necessarily represent the views or opinions of the Members of the Council of Professional Associations on Federal Statistics (COPAFS).

The comments in the uploaded file address the infrastructural, administrative and governance aspects of the establishment of a national clearing house for federal administrative data. It is informed by my 5 years of experience as the Administrator of one of the 13 Principal Statistical Agencies of the U.S. (the Economic Research Service of USDA), my administration of research programs that evaluated social programs in food assistance (SNAP, WIC, school lunch) and years of personal research and program evaluation utilizing administrative data from USDA program agencies, including objective evaluation of the Conservation Reserve Program, Farmland Protection Program, and aspects of USDA water quality programs.

A main point is that the construct, administration, and governance of a clearinghouse for researcher access to federal administrative data may best be managed by a partnership among academic institutions, the federal government, and state and private owners of administrative data related to federal programs. It is further suggested that the locus of operations of a clearinghouse could be a university or universities, and that brick and mortar facilities need not be the only alternative for private, highly secure, and supervised access to confidential administrative data.

Details are given in the attached file

Attachments

Comment by Katherine Smith Evans to CEP

**Comment by Katherine Smith Evans, Executive Director,
Council of Professional Associations on Federal Statistics
to the
Commission on Evidence Based policymaking**

Disclaimer: This set of comments reflects my views and experience, but does not necessarily represent the views or opinions of the Members of the Council of Professional Associations on Federal Statistics (COPAFS).

These comments address the infrastructural, administrative and governance aspects of the establishment of a national clearing house for federal administrative data. It is informed by my 5 years of experience as the Administrator of one of the 13 Principal Statistical Agencies of the U.S. (the Economic Research Service of USDA), my administration of research programs that evaluated social programs in food assistance (SNAP, WIC, school lunch) and years of personal research and program evaluation utilizing administrative data from USDA program agencies, including objective evaluation of the Conservation Reserve Program, Farmland Protection Program, and aspects of USDA water quality programs.

A main point is that the construct, administration, and governance of a clearinghouse for researcher access to federal administrative data may best be managed by a partnership among academic institutions, the federal government, and state and private owners of administrative data related to federal programs. It is further suggested that the locus of operations of a clearinghouse could be a university or universities, and that brick and mortar facilities need not be the only alternative for private, highly secure, and supervised access to confidential administrative data.

1. Challenges to federal agency management and operation of a clearinghouse of data we expect to grow over time include the following:

    *   **Uncertain funding of federal agencies makes long-term planning and planned growth difficult**. Statistical agencies of the U.S. have not received appropriations consistent with their programmatic needs. Over the last 5 fiscal year, statistical agencies have generally experienced stagnant or declining inflation-adjusted appropriations, even as:
        o   New data collections are legislated (as in the case of the Bureau of Transportation Statistics);
        o   Costs for the collection, processing, storage, protection, and dissemination of data and statistics rise with inflation;
        o   Agencies budgets are taxed, heavily and without recourse, for support of centralized IT systems; and
        o   Some Departments substantially tax agencies to support Departmental administrative functions.
        Furthermore, budget actions such as "sequestration" [i] have cut programs indiscriminately for the purpose of overall deficit reduction.

    *   **Static and declining funding forces decisions about what programs to cut** (unless an administrator jeopardizes the quality of all programs by instituting across-the-board cuts). As a rule, statistical agencies must first protect all programs mandated by law. Second and critical priorities are programs that support decision making (such as rate-setting) for other federal government units. Third priorities are those that further the stated mission of the agency but

are not mandated and do not support mandated activity. By necessity, at the bottom of the list for program maintenance are voluntary programs that are not directly supportive of an agency's mission. Under current law, no agency is mandated to provide confidential access to administrative data that it does not generate.

- **All federal agencies are subject to laws that can impede the efficiency of data operations and could potentially, under future circumstances, lead to breaches in confidentiality.** Examples include the Federal Information Technology Acquisition and Reform Act, which gives Chief Information Officers at Cabinet Department levels to prescribe or approve IT hardware or software licensing. Although statistical agencies are accommodated by the law, experience to date is that the law can substantially lengthen and complicate a variety of operational processes. The Cybersecurity Act of 2015 requires all agencies to use malware protection software operated by the Department of Homeland Security (DHS). The law mandates that all internet traffic into and out of agencies be monitored by DHS. It also states that the only purpose for DHS access is for cybersecurity, but there is no specified penalty for failure to limit DHS use to cybersecurity,

2. Inadequate involvement of data users in data clearinghouse governance can mean that program evaluation partnership opportunities are overlooked.   Many agencies do work closely with advisory committees that provide valuable input to agency decision making. But there is a large difference between giving advice and being involved directly in such processes as assurance of accountability, prioritization, allocation of funding, and strategic planning.

3. There are successful, alternative models for administrative data access and linkage for research and program evaluation purposes. For example:

- T**he Administrative Data Research Network (ADRN) of the United Kingdom** (https://adrn.ac.uk/about/general-information/what-we-do/) is a group of universities and national statistics agencies spread throughout the UK, that work together to help researchers get access to de-identified, linked administrative data. It is funded via a government agency, the Economic and Social Research Council, which is the UK's largest organization for funding research on economic and social issues. It is governed by a Board of Directors that is chaired by the UK Statistics Authority and includes representatives of partnering universities, government departments and agencies, funders and the wider research community. The ADRN's Administrative Data Service: helps researchers prepare their projects for assessment by an Approvals Panel; processes all applications and provides project support; trains researchers to use administrative data safely, legally and responsibly; negotiates with data custodians, such as government departments and agencies, for access to administrative data; assures standards of data security to protect privacy; and informs the public about the social benefits of the research it facilitates.

- **ICPSR is an international consortium of more than 750 academic institutions and research organizations,** that provides leadership and training in data access, curation, and methods of analysis for the social science research community. ICPRS maintains a data archive of more than 250,000 files of research in the social and behavioral sciences as well as themed sets of statistical data from federal agencies and other sources. The Consortium receives funding from

both public and private sources and is governed by elected representatives from among its members.

4. Private interests can provide equivalent or superior service to public agencies with respect to data privacy and the confidentiality of respondents. For example, NORC at the University of Chicago manages a data enclave that a number of federal agencies use to allow secure *and remote* access to confidential data. If one envisions private administrative data sets (for instance, John Deere's proprietary precision agricultural data that could productively be linked with federal conservation program administrative data), being included in an administrative data clearinghouse, it is conceivable that private businesses could view private data services as more secure than federally operated services. This is especially true given uncertainties about a uniform, DHS-operated cybersecurity system.

These comments should not be read as a condemnation of federal administrative data access management. Indeed, the federal data research center system and individual agencies have a magnificent history of maintaining data privacy and confidentiality. And many agencies are responsive to the needs of those who would use administrative data for research and program evaluation purposes. I do, however, think it is important to acknowledge that alternative models for a secure and highly functional administrative data clearing house can be imagined.

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[i] **Budget sequestration** is a procedure in U.S. law that limits the size of the federal budget. It involves the Congressional Budget Committee setting a hard cap on the amount of government spending within broadly defined categories; if Congressional Appropriations Committees enacts annual appropriations that exceed these caps, an across-the-board spending cut is automatically imposed on these categories, affecting all departments and programs by an equal percentage.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0248
Comment on FR Doc # 2016-22002

Submitter Information

Name: Pamela Budge

General Comment

4. What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation, and analysis purposes?
ANSWER: Data should NOT be merged or linked or accessed unless individual informed consent is expressly given from people whose personal data will be used for research, evaluation, or analysis purposes.

5. What challenges currently exist in linking state and local data to federal data?
ANSWER: State and Local data should NOT be linked to Federal data.

6. Should a single or multiple clearinghouse(s) for administrative and survey data be established to improve evidence-based policymaking?
ANSWER: None.

7. What data should be included in a potential U.S. government data clearinghouse(s)?
ANSWER: None.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0249
Comment on FR Doc # 2016-22002

Submitter Information

Name: Kathy Hsu

General Comment

Please kindly find attached comments from Socrata. Thank you !

Attachments

Socrata Response _ Commision on Evidence Based Policymaking

Socrata Response _ Commision on Evidence Based Policymaking

Bureau of the Census (USBC)

Proposal for Commission on Evidence-Based Policymaking

Submitted To:
Bureau of the Census (USBC)
c/o Nick Hart, Policy and Research Director for the Commission on Evidence-Based Policymaking,
U.S. Census Bureau
4600 Silver Hill Road
Washington, DC 20233
Email: nicholas.r.hart@census.gov

Submitted By:
Kathy Hsu, Federal Account Consultant
705 5th Ave S #600,
Seattle, WA 98104
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Socrata

Executive Summary

The Commission on Evidence-Based Policymaking (i.e., the Commission)'s authorizing legislation directs the Commission to consider how administrative and survey data "may be integrated and made available to facilitate program evaluation, continuous improvement, policy-relevant research, and cost-benefit analyses by qualified researchers and institutions." Through this directive, the Commission is exploring ways in which to increase access to, and transparency of, government data to foster greater awareness and understanding by the general public, and to promote more informed policy making overall.

In the pages that follow, we outline our thoughts and recommendations in response to each question presented in the Bureau of the Census (USBC)'s Request for Information (RFI). We include common open data challenges facing agencies today, and we discuss typical best practices that can help overcome those challenges - including workflow, data governance, the monetization of certain data sets, and the protection of sensitive data. We also offer examples of how our technology products - specifically Socrata's Open Data Platform - can improve accessibility and transparency of the Commission's data, by offering robust visualizations and narratives to help users more clearly understand the data and make educated decisions based upon that information.

Socrata's suite of open data products provides administrators and end users with:

❖ **A world class data discovery experience.** We firmly believe that users should be able to find the data they are looking for easily, regardless of their technical sophistication and familiarity with robust datasets. Across each initiative we engage in, our team ensures that accessibility and ease-of-use are of top-most priority.

❖ **A Collaboration Environment.** The Socrata Data Platform facilitates collaboration around data, through commenting, sharing, and regular updates. This promotes a thriving data-marketplace that firmly connects data producers with data consumers.

❖ **Core Integration Capabilities.** Socrata has mastered the automation of data and metadata workflows, and integration to pull data from a wide variety of systems, and programmatically distribute it to tools and software for using data. The ability to combine many shapes and sources of data into a central platform will be a main predictor of the Commission's ability to use data intuitively.

❖ **Continuously Improving Cloud-based Delivery Model.** Our data analysts and developers are constantly creating and adding new and improved capabilities, and our technologies today go far beyond what they were as recently as 12 months ago. That trend will continue, meaning our customers continuously benefit from a future-proof infrastructure that continues to evolve as technology improvements open up new innovation possibilities in the future.

Technology, People, and Process to Harness the Power of the Commission's Data

Since our founding, Socrata has worked with over 1,300 governments, NGOs, non-profits, and multilaterals organizations globally. This includes virtually all major cities in the United States, dozens of counties, roughly half of all states, 19 Federal customers, and multiple international groups.

Our team provides a unique combination of capabilities and expertise for accessing and aggregating data across disparate sources inside the enterprise. We also excel at making the data discoverable and understandable to a wide

range of different user types, via downloadable export options, data visualizations, dashboards, and tailored data exploration experiences.

Socrata is the nation's leading government data platform in number of active deployments, revenue and dedicated engineers, customer success managers, apps, and innovators.

Our mission statement is ***unleashing the power of government data to improve society,*** and we work to achieve this by combining smart technology, people, and processes:

❖ **Technology.** Socrata provides a software as a service (Saas) platform powered by the industry leading Amazon AWS infrastructure. Our product is Commercial Off-the-Shelf (COTS) software, meaning there is no custom development or software consulting deliverables required to implement or maintain the solution.

❖ **People & Process.** Our team has outstanding hands-on experience planning, implementing and executing public sector open data and performance management initiatives. Our staff members include former government performance analysts, program managers, data analysts, and systems engineers - all of whom work exclusively on local government projects. Socrata brings best practices in both Open Data and Performance Indicators Management for government. And, we utilize a proven, Seven Step Implementation Methodology to ensure each project is designed around repeatable industry best practices.

We look forward to discussing this important initiative in greater detail with your team, and we'd welcome an opportunity to demonstrate the flexibility of our solution.

Sincerely,

Kathy Hsu, Federal Account Consultant
Phone: (925) 719-9707
Email: Kathy.hsu@socrata.com

Overarching Questions

The following sections includes Socrata's feedback on all questions outlined in USBC's RFI. Wherever possible, we have provided specific examples of where our technology products can help the Commission achieve its survey and administrative requirements, and we've illustrated specific projects on which we've achieved similar results for our customers.

1. Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

The Commission should consider taking a look at the Pew MacArthur Results First Initiative, which is a project of Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation. The initiative works with states and localities to develop the tools policymakers need to invest in programs that will likely yield high impact. In working with 20 states and six (6) counties, the initiative is focused on: 1) creating an inventory of currently funded programs in a particular government, 2) reviewing programs which work, 3) conducting cost-benefit analysis to compare programs' likely return on investment, and 4) using evidence to inform spending and policy decisions. The initiative also comprises the Results First Clearinghouse Database, which is one-stop online resource that provides policymakers with an easy way to find information on the effectiveness of a variety of interventions.

Socrata has had a number of discussions with Pew recently given that a few of our customers, most notably Montgomery County, MD, are focused on evidence-based policymaking as well as data publishing and data storytelling. The Commission should consider the policies and practices of leveraging technology to support this work, for everything from data collection, to data governance, to data quality, and ultimately data-driven decision making and communication of results. We dive into each of these aspects in greater detail within Questions 3 and 13.

2. Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?

Centralized access to administrative and survey data is critical to promoting evidence-based policymaking. However, it is equally crucial that whomever you select as your partner is equipped to ensure the security and privacy of that data as it is published for researchers, institutions, and the general public.

Socrata follows industry best practices for ensuring the security and privacy of data that we host on our platforms, including:

❖ Hosting data in a secure system that offers role based access control - i.e., only those on a "need to know" basis are given access;
❖ Establishing data governance and lifecycle practices with customers like the Centers for Disease Control, UN Capital Development Fund, and other organizations that ensure data conforms to federal law around personally identifiable information
❖ Creating views on top of private data that can be shared with wider audiences, yet hide information that is meant to be internal only;
❖ Maintaining physical data security measures, which includes replicating data between three different AWS Availability Zones, in each of two geographically separated AWS data centers. Each zone can power the entire Socrata platform, as well as replicate the database write-ahead logs in near-real-time and take full backups every three days. Backups are retained for 30 days, and Socrata has an RTO target of 96 hours in the event of catastrophic failure of the AWS environment.

Furthermore, Socrata fully complies with FedRAMP regulations for responsible disclosure and notification, in the case of breach, leakage, or security incident, and we maintain an Information Security Contingency Plan that covers business continuity, as well as incident response procedures. This plan is reviewed and tested annually, and the plan and test results can be made available upon request. We maintain a FISMA-Low ATO, and we inherit our physical security measures from AWS. In addition, Socrata is currently in process to receive FedRAMP certification. We

have completed our audit and are working with a cabinet-level agency to finalize the process and achieve our Authority To Operate (ATO). To see the latest on our current status, please visit the Socrata CSP page on the FedRAMP website.

Data Infrastructure and Access

3. Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?

One of the biggest transformations in modern government has been the pivot to data transparency and efficiency. Traditional data was often siloed - locked up within internal government networks and servers, making highly valuable information inaccessible to other departments, researchers, policy makers, and public users who could benefit from it most. The move towards data visibility has led to sweeping improvements across the government, providing the public and key stakeholders with instant access to critical data and performance measures that can guide more informed decision making.

Foundational and policy-specific evidence are vital to the creation of specific programs and legislation, and this evidence relies heavily on survey and administrative data, including: large-scale administrative data; program-specific administrative data; general purpose survey data; and study-specific survey data.

Best Practices for Opening Survey Data

Because of survey complexity, often this data remains in formats that are inaccessible or unusable to the general public. Existing government data infrastructures can be modified to facilitate access to, and sharing of, administrative and survey data by:

❖ Uploading it to a centralized platform that enables easy sharing among internal teams and external users, as needed;
❖ Ensuring data is captured in a machine-readable, API-enabled format;
❖ Increasing data accessibility through easy-to-use search features, and proper metadata classification for filtering;
❖ Promoting scalability - making it easy to build on top of the display data in a visual, easy-to-understand format.

Socrata Open Data Platform for Optimized Transparency & Accessibility

Socrata offers a unique combination of capabilities and expertise for accessing and aggregating data across disparate sources. On every data initiative we engage in with our clients, our focus is on making data discoverable and understandable to a wide range of different user types. We do this through sophisticated data visualizations, easy-to-use dashboards, contextual narratives, flexible download and export options, and highly-tailored exploration experiences.

The **Socrata Data Platform** is a cloud-based, turnkey, software-as-a-service (SaaS) solution designed from the ground up to simplify the process of data publishing and data access.

High-level Socrata Data Platform architecture.

It empowers end users with tools for ad-hoc data consumption, exploration and visualization, and provides capabilities that enable the sharing of that information across multiple channels. The platform is delivered as a web portal that allows users to:

❖ Perform robust searches for data and information.
❖ Interact with that data by sorting, filtering, and performing group-by and roll-up operations.
❖ Create real-time visualizations on top of the data with charts, graphs and maps and save these visualizations to user profiles.
❖ Share data and saved views in context rich reports, dashboards and stories to extend its reach and utility.
❖ Integrate, extract and cleanse a variety of shapes and sizes of source system data in real time and present that information in a consumption formats.
❖ Empower advanced users and developers with machine readable data, APIs and tools to create sophisticated services, robust interfaces and dynamic mobile applications.

For USBC, this platform would offer a number of important benefits across the data lifecycle, including: acquiring data; preparing the data; providing data; and monitoring usage and outputs. We see these benefits as including:

❖ **A world class data discovery experience.** Socrata's world class data discovery experience would allow USBC users to find the data they are looking for easily, regardless of their technical sophistication and familiarity with robust survey results and datasets.
❖ **A Collaboration Environment.** The Socrata Data Platform facilitates collaboration around data, through commenting, sharing, and regular updates. It promotes a thriving data marketplace that quickly connects data producers with data consumers to foster informed action as a result of that data.
❖ **Core Integration Capabilities.** Socrata's products allow for the automation of data and metadata workflows, including the integration of data from a wide variety of systems.
❖ **Continuously Improving Cloud-based Delivery Model.** New and improved capabilities and features are constantly being added to the Socrata suite of products, which means USBC administrators would benefit

from a future-proof infrastructure that continues to evolve as technology improvements open up new innovation possibilities in the future.

Socrata Work Samples Relevant to USBC's Data Initiative

Socrata's work spans federal, state, and local government projects, and we have highlighted a specific example below from the CDC - which centers on the hosting and administration of survey data:

CDC's Chronic Disease and Health Promotion Data & Indicators

Increasing and improving access to CDC's chronic disease and health promotion data and indicators is a key component of addressing the burden of chronic diseases in the United States. Chronic diseases are responsible for 7 of 10 deaths each year, and treating people with chronic diseases accounts for 86% of our nation's health care costs.

In January 2015, the National Center for Chronic Disease Prevention and Health Promotion at the CDC launched Chronic Disease and Health Promotion Data & Indicators that aims to enable quick access to data and indicators across health areas such as tobacco use, reproductive health, oral health, cancer, legislative actions, and behavioral risk factors – to name only a few.

As an early adopter in the Center, the Office on Smoking and Health migrated the current and historical state-level data on tobacco use prevention and control housed in the State Tobacco Activities Tracking and Evaluation (STATE) System to the new data Tobacco Use Portal and opened the door to using a new technology portfolio to reinvent the STATE System for 2015.

Now in Socrata, users such as data analysts, policy staff, and researchers can quickly view data in colorful charts, graphs and maps, create custom filters to subset data, download data in a variety of formats, and even receive updates when data of interest has been updated. The featured dataset below displays a map of US states with comprehensive smokefree air laws, which protect the public from exposure to secondhand smoke.

4. What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation, and analysis purposes?

The real power of data to drive evidence-based policymaking is unleashed when researchers and policymakers can combine data and present it to legislators and to the public in novel ways. In order to facilitate this, data needs to be on a platform that allows users to easily build on top of that information to provide greater insight - going beyond simply presenting raw data, to offer insight into why it matters, and ensuring users understand its accuracy and integrity. One way the underlying data infrastructure can facilitate the merging and linking of data is to provide programmatic access to data through application programming interfaces (APIs). APIs allow developers to build tools that extract data from multiple datasets or other web services and merge them using the attributes of the data itself, or more complex methodologies. For researchers who may not be developers or as technically sophisticated, APIs allow them to feed data into commonly used statistics and visualization tools, like Tableau and SAS.

The Socrata Open Data API provides an open, standards-based, RESTful application programming interface for datasets. Any dataset uploaded to the Socrata platform is automatically provided with a RESTful JSON endpoint, allowing developers to leverage data within the platform through a familiar and powerful API built on open standards. The Socrata platform also has libraries for development languages like R, which are commonly used in the statistics community.

Socrata's open APIs give users the power to:

- ❖ Upload data in a central platform, allowing users to build on top of it;

- ❖ Merge and link data through visualizations;

- ❖ Combine data with APIs and and build custom tools on top of it;

- ❖ Take into account the fact that governments cannot account for every single use of data, thereby leveraging APIs to give end users flexibility to build the apps they need;

- ❖ Make data accessible via endpoints, allowing common visualization and analysis tools to be used;

- ❖ Unlock machine processing of datasets; and

- ❖ Empower developers to combine datasets with other web services for new mashups and applications.

5. What challenges currently exist in linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

Data challenges that exist with inter-agency data sharing - both between federal agencies themselves, and between federal and state agencies - are typically self-imposed. Often, agencies at all levels have adopted formal and informal policies (e.g., sharing of personally identifiable information, other sensitive information, etc.) over the years - sometimes with limited understanding of how these policies may contribute to the difficulty around sharing within government or between governments. These policies are often complicated further by technical complexities, including differences in data schemas and inconsistencies in common data terms used.

We recommend that the Commission lead a review of all existing policies - with strong federal, state, and local executive leadership - to identify archaic data sharing policies, and create an action plan to refine these policies to promote greater accessibility and use.

6. Should a single or multiple clearinghouse(s) for administrative and survey data be established to improve evidence-based policymaking? What benefits or limitations are likely to be encountered in either approach?

Socrata's recommendation is to centralize all data on a single platform to ease administration and data management. However the decision to establish a single warehouse, or multiple clearinghouses for administrative and survey data, should be based on the administration model of that clearinghouse. It is likely that the owners, curators, and publishers of the data will be different from the consumers - and not all will have the ability to edit and/or view every dataset. If a clearinghouse does not support the unique administration of assets, it may be valuable to segregate data into multiple clearinghouses with different permission models. A data platform like Socrata that enables roles based access control can house all data in one, centralized clearing house and maintain administrative boundaries.

The Socrata platform limits who can see and perform actions based on defined end user permissions, and depending on whether a dataset is recorded as "private" (i.e., internal only) or "public" (i.e., published externally for researchers and institutions). A role defines the types of actions that someone can perform across all datasets on the domain.

Administrators on a Socrata-powered data site are able to assign any number of roles to other users, allowing for delegation of tasks on the site and enabling other users to create and manage datasets. Socrata users can have roles on a domain, which define the types of actions they can perform *across all datasets on that domain, as well as high-level operational control of the domain itself.* Examples of these actions include publishing data, adding features, or managing users. Socrata users can also be granted specific user permissions per dataset. A permission defines the types of actions that someone is able to perform *on a specific dataset.* Examples include editing that dataset, viewing that dataset, and publishing that dataset.

7. What data should be included in a potential U.S. government data clearinghouse(s)? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

The data that the Commission should consider including really depends on the problems it is trying to solve, and the related programs and policies where greater evidence building will be used to drive more impactful practices. Whatever data the Commission decides to include, it should be filterable and searchable in a number of ways, such as by broad policy area, issue area, department, data type, data source, and perhaps some type of rating as to its usefulness - and in the case of an intervention, whether it's proven. Each dataset should also be API-enabled for greater utility across applications.

In terms of data specifically, the Commission should first consider broad themes in the areas of: economy, health, education, transportation, agriculture, environment, housing, and security, and then drill deeper into specific policy areas under each broad theme. The Commission should emphasize data that has multiple applications, can be used by multiple parties with few barriers, and has strong re-use value.

8. What factors or strategies should the Commission consider for how a clearinghouse(s) could be self-funded? What successful examples exist for self-financing related to similar purposes?

Socrata's recommendation for self-funding its clearinghouse is to offer full access to specific data sets for free, but charge users for access to more detailed reports, data visualizations, or highly-valuable analysis and narratives (e.g. specific benchmarking reports and analysis etc.). We work with one customer in particular - the Carbon Disclosure Project (CDP) - who offers free data across a number of key areas, but charges users a specific fee for access to its premium data sets.

CDP's purchasing page for access to its premium data.

Premium access for CDP users includes entry into a larger collection of primary environmental data, maximum flexibility to use its raw data, and historical data going back five years, providing greater transparency into how companies have evolved throughout the years. If the Commission can identify specific data that is uniquely valuable, offering a similar model is likely the easiest way to at least partially self-fund.

9. What specific administrative or legal barriers currently exist for *accessing* survey and administrative data?

In the White House Commission on Evidence-Based Policymaking's white paper, <u>Barriers to Using Administrative Data for Evidence - Building</u>, it states that "Agencies need infrastructure, such as trained personnel, formal written procedures, and information technology tools, to consider data sharing requests and to develop and implement data sharing agreements" to overcome barriers for data use. Many of these barriers also exist for accessing survey and administrative data. In order to use data, it needs to be collected, curated, centralized, published, and shared between organizations so that researchers can access and use it effectively. It also requires a methodology that addresses all these stages in a complete and robust way.

Our projects are typically divided into three high-level phases that include: **plan**, **build**, and **handoff**. Throughout the project the Socrata team focuses on:

❖ Establishing goals and success measures, and working closely with stakeholders to develop clearly defined (and ideally measurable) goals.

❖ Defining the proper user experience (UX) for end users. Techniques such as wireframing and rapid prototyping are employed to elicit user feedback and suggestions to inform the UX design.

❖ Working with data owners to establish a dataset on-boarding process, including:

➢ Surveying and identifying relevant datasets,

> ➢ Cleansing and formatting data, and

> ➢ Processing metadata.

❖ Building and managing negotiations and trusted relationships with key data providers, with respect to public information, privacy, data sharing, and level of access.

❖ Managing roll-out and an ongoing enhancement strategy, and maintaining documentation.

❖ Promoting industry knowledge and leadership regarding innovation trends and emerging market shifts.

❖ Effectively maintaining key contacts related to survey and administrative data, community engagement, and data integration.

Coupling a strong, repeatable program methodology with a technology platform that removes current barriers to accessing survey and administrative data is key to the success of a good data program. The Socrata platform provides data publishers with the ability to curate metadata and any supporting documentation, and equips users with multi-level catalog search and filtering capabilities to find appropriate data and then make user of it.

10. How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions?"

Socrata has elected not to answer this question, as it is outside the scope of our expertise. Should this RFI move to a Request for Proposal, we will partner with a trusted company in order to supplement any areas of work that we cannot deliver.

11. How might integration of administrative and survey data in a clearinghouse affect the risk of unintentional or unauthorized access or release of personally-identifiable information, confidential business information, or other identifiable records? How can identifiable information be best protected to ensure the privacy and confidentiality of individual or business data in a clearinghouse?

When dealing with sensitive data that may include personally-identifiable information or other confidential information, it is of critical importance to establish robust data governance and lifecycle management practices. Socrata's data consultants work with organizations on a daily basis to establish data practices that ensure PII and confidential information is not transferred from source data systems to clearinghouses that are open to researchers and other public with access.

According to best practices data is processed through an extract, transform, load (ETL) workflow that scrubs it of any sensitive information before it is published to a clearinghouse. Separating the data that is housed in the clearinghouse from the source systems prevents any accidental contamination and dissemination.

Before data is published on the Socrata platform it also goes through an approval process. Datasets that are set to be published go through stages, or gates, with configurable settings for approval stages with assigned gatekeepers for each stage and controlled notifications. This approval queue allows individuals to approve or reject datasets and provides view of all the datasets currently in the publishing lifecycle. Any sensitive information that accidentally made it past the ETL process can be flagged by administrators before it is published on the platform.

12. If a clearinghouse were created, what types of restrictions should be placed on the uses of data in the clearinghouse by "qualified researchers and institutions?"

Socrata believes data access should be restricted by user role, and by "need to know." For example, researchers should only have access to data that is relevant to their project(s), and even then, only if their role on the project team requires that access. Adhering to this concept of "least privilege" minimizes the risk that potentially sensitive project data will be unduly exposed.

13. What technological solutions from government or the private sector are relevant for facilitating data sharing and management?

Socrata's suite of open data products are highly relevant for the facilitating of data sharing and data management. We provide multiple tools to ensure our customers' data is provided to the right audiences at the right time, and our solutions center on promoting the highest levels of data discoverability, visualization and context, and sharing and usability:

Data Discoverability

Socrata's Open Data solution provides better access to quality data and is used extensively by elected officials and policymakers, government employees, residents and businesses, and developers and advocates. Using Open Data Portal allows users to:

❖ Publish datasets on any topic (and these data sets can be up to hundreds of millions of rows long), including: geospatial data, financial data, public safety data, and much more;

❖ Use a global search interface to find the data, and take advantage of built-in SEO optimization to enable data to be found via standard web browser searches;

❖ Provide insight into your most popular datasets with a summary page that captures important information about your uploaded content.

Visualization and Context

Charts and graphs would allow USBC staff to transform data into visualizations to promote better understanding of trends and gaps. Users can easily create and maintain customized charts, graphs, and other data visualizations for public data use, without having to build and maintain a data infrastructure on their own. We offer 13 different visualization formats available out-of-the-box, which can be dynamically applied to datasets for maximum flexibility in displaying critical information. These include:

Area chart | Bar chart | Bubble chart | Column chart | Donut chart | Line chart | Pie chart | Stacked bar chart | Stacked column chart | Timeline | & Tree map

Furthermore, we have developed our own charting library using the D3.js toolkit, which provides a wide range of configuration options, dramatic colors, as well as great performance and stability. Charts will always support the full set of values calculated and rendered, with no limitations to scrolling across the full dataset in a chart, in order to display every value. They will auto-scale dynamically depending on type, and the axis placement can be dragged around on the page to provide the best display on your screen. Visualization legends also support conditional formatting.

Visualization options using Open Data Portal.

Socrata Perspectives augments the Open Data Portal by helping users connect the dots between policy and outcomes. With Socrata Perspectives, users are able to easily and quickly produce narrative reports and stories with drag-and-drop functionality that allows for text, images, maps, and data visualizations. The screenshots below show a sample dashboard, before context and data is added (left), and and after (right).

USBC employees can leverage a drag-and-drop toolkit of images, visualizations, text, video and banners to create compelling reports and dashboards based off of live data.

Resulting reports pair data with text and will track updates as they are published from the SSP and EHRI Data Warehouses.

Sharing and Usability

Maximizing the value of data means making it available to as many people as possible. Socrata provides several tools to empower data users to easily access and utilize the data in creative ways.

❖ Share any data asset on Socrata's platform with others directly through the built-in data catalog or on social media.

❖ Embed content within existing websites or build a customized, attractive open data homepage.

❖ Syndicate datasets from other nearby localities to increase the context and meaning of the data.

❖ Give technical developers, innovators, and entrepreneurs easy access to the data through the Socrata Open Data API (SODA).

14. What incentives may best facilitate interagency sharing of information to improve programmatic effectiveness and enhance data accuracy and comprehensiveness?

There are a number of ways to incentivize the facilitation of interagency data sharing, including:

❖ Making data sharing a condition of federally-funded research;

❖ Working with OMB to develop a fund that will support these efforts across agencies through the budget process;

❖ Setting collaborative goals for improving program performance through evidence-based practices that cut across mission areas and departmental silos and that require shared data to drive progress;

❖ Rewarding researchers for releasing and sharing data through proven citation systems so they receive credit and exposure;

❖ Providing unique opportunities for "data sharers" from agencies across government to discuss promising practices in a variety of fora with opportunities to lead a series of studies, sponsored by the Commission and perhaps the White House, on programmatic impact through evidence-based policymaking; and

❖ Providing a common data platform, available to all who participate as "data sharers", for data sharing governance, management, and analysis.

Data Use in Program Design, Management, Research, Evaluation, and Analysis

15. What barriers currently exist for *using* survey and administrative data to support program management and/or evaluation activities?

Lack of documentation and appropriate metadata are two barriers to effective data use, after that data has been published publicly. It is critical to augment raw data with metadata and accompanying documentation so that users can determine if and how that data is appropriate for them to use. As the Barriers to Using Administrative Data for Evidence - Building states: "Data curation also includes the maintenance of relevant metadata and other documentation. Prospective data users need at least minimal documentation to assess fitness for a given use, and more detailed documentation enables more informed and appropriate use." A platform that allows data publishers to curate and publish metadata is crucial to data accessibility and understanding, and the Socrata technology stack and methodology makes metadata a priority.

Socrata contains standard metadata fields and also allows for custom definition of required and optional metadata fields. Specific fields, drop-down menus, and other metadata entry points can be added by administrators to ensure that all uploaded data follows an existing schema, and is not uploaded without complete metadata entry and definition.

In addition to being able to configure all metadata content and fields during upload, any number of files can be attached to a datasets to allow for full documentation to accompany these datasets. A data dictionary, or a guiding document with detailed descriptions of the dataset and its metadata can be attached in this way. Any attached documentation will always accompany the dataset, and administrators can also configure the metadata templates to ensure all data sets are documented accurately.

16. How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?

Socrata has demonstrated excellence in developing high-profile open data portals, and in addressing administrative, usability, and ongoing support needs. Our clients include federal, state, and local governments, and in the process of completing over 1,300 projects, we have seen how data can help organizations increase transparency, encourage engagement and, in turn, improve policies and program. Below are a few examples:

Centers for Medicare and Medicaid Services

As the biggest single payer for health care in the U.S., the Centers for Medicare and Medicaid Services (CMS) is playing a leading role in making the costs of healthcare more transparent and easier to compare across geographies and providers. Its sites, data.cms.gov and data.medicare.gov, share data on the costs for procedures at different hospitals, as well as data on quality and efficacy, such as readmission rates by facility within 30 days after discharge.

The release of data is a critical component of CMS's strategy to drive improvements in the U.S. healthcare system. "Data transparency is a key aspect of transformation of the health care delivery system," says CMS Administrator Marilyn Tavenner.

By improving the availability of data on cost and quality, CMS has catalyzed competition in a largely opaque market. Their open data sites empower both consumers and payers and provide information in a variety of formats that serve many audiences. For example, access to the raw, machine-readable data available behind any visualization allows sophisticated users, such as researchers and data scientists, do in-depth analysis. It also allows private sector providers to benchmark themselves and understand how they compare against their competitors, hospitals, insurance companies, and individual providers.

Under the Tavenner's leadership, CMS has made releasing data a key part of its strategy to make the US healthcare system more transparent, affordable, and accountable. CMS has been releasing cost and quality data to the public domain since 2011.

"Data is the lifeblood of our healthcare system, and for too long it has not been optimized by its full potential," says Tavenner.

City of Boston

The City of Boston had been publishing their budget in multi-volume PDFs for years. While there's a wealth of information contained in these volumes, it can be difficult for the public to understand where the City is allocating resources and for what purposes. In 2014, Boston Mayor Marty Walsh issued an executive order to improve the City's open data efforts. Three months later, the City released a web-based interactive application – Socrata's Open Budget -to publish both their operating and capital budgets. Open Budget has improved the City's financial transparency and given everyone – city employees, reporters and researchers, and the public – easy access to the City budget.

Open Budget allows the City to publish to single portal that anyone can access. Because the budget data is public and easy to navigate, more audiences – citizens, reporters, academia – are able to review the exact same datasets that the government uses.

The City had a fairly painless migration from our original datasets to the Open Budget data schema. "We were lucky, our data was mostly well-formed," said Dwelley "We had a few items that needed customization, but Socrata handled that for us."

There have been immediate internal benefits from the City's open data program. Fewer requests for information free up staff time and consistent reporting across departments helps with information sharing. But Boston is also excited about what citizens can do with the data now that it's so easy for them to access and understand.

Code for Boston hosts a weekly hack night that encourages "developers, designers, urban planners, and data geeks" to use technology and publicly available data to solve community problems. The Mayor's Office of New Urban Mechanics taps the data to help understand problems as diverse as school transportation and improving the quality of Boston's roads.

City of Seattle

The Seattle Police Department, the birthplace of bicycle patrol units, has a track record of innovation and a forward-thinking approach in its publishing of public safety data. In 2012, a federal investigation over charges of excessive use of force, as well as related concerns regarding officer supervision and internal investigations, resulted in an agreement between the Seattle Police Department and the U.S. Department of Justice. The two organizations crafted a reform plan to boost the SPD's oversight, training, and reporting.

The department achieved extraordinary progress in the reform areas over the following two years, including pioneering the publishing of public safety data. Momentum increased in 2014 with the appointment of Chief Kathleen O'Toole, as well as the launch of SeaStat, the SPD public safety data portal created in partnership with Socrata.

The SPD joined forces with the city's Chief Technology Officer to cosponsor the City of Seattle's privacy initiative. Together, they built upon the city's race

and social justice initiative, promoted a set of guiding privacy principles, and crafted strategies to increase transparency, while also protecting privacy rights of citizens. These efforts will help city departments assess privacy issues around open data.

17. To what extent can or should program and policy evaluation be addressed in program designs?

Program and policy evaluations include policy-specific evidence that allow organizations to determine whether a particular program or piece of legislation is achieving its objective. Socrata is a strong proponent of data-driven, evidence based government. When appropriate, these evaluations should include performance measures and indicators that can be addressed and evaluated in program design. Socrata has worked with organizations at the state, local, and federal level in collecting and analyzing evaluation data and presenting it to the public to drive transparency into program and policy effectiveness. We provide specific examples below.

18. How can or should program evaluation be incorporated into program designs? What specific examples demonstrate where evaluation has been successfully incorporated in program designs?

Cook County's performance management program began in January of 2011, when the County passed an ordinance that required each office and agency to set goals and collect operational data around those goals. The County began a program to create a strategic plan around the use of open data for decision-making and communications. Andrew

Schwarm, Chief Performance Officer of Cook County, was the project lead tasked with finding a performance measurement tool.

"We faced two main challenges when we began this program," Schwarm says. "The ordinance requires weekly meetings to review our goals and measure performance. There is also a reporting requirement."

The County started by publishing reports quarterly in PDF format. "Quickly, we saw it was difficult for residents to dig into these dense reports and digest the information in a useful way," Schwarm explains. "We needed a tool that would allow us to take the wonderful data we collect quarterly, around 750 data points over 50 agencies across the County, and publish it in a usable way. Performance Data Cloud (formerly known as Open Performance) jumped out as the solution that made the most sense for us."

An early adopter of the GovStat platform, Cook County chose a two-phase implementation process. First, the County replicated the PDF data and created reports for each department. "GovStat allowed us to take the data already gathered and put it on a more flexible, user-friendly, open, and transparent platform," Schwarm says.

Once the data was updated and made available to the entire organization, Cook County entered phase two of the implementation: using data to drive decisions. "[Data-driven decision-making] is now part of our culture and the way we do business," explains Schwarm. What's more, accurate data allows Cook County to tell accurate stories.

One early goal emerged from the Finance and Administration Department. "We started by measuring employee time and attendance. Using GovStat and the data we collect helped us identify policy abuse or data entry errors, reducing average employee sick leave per month from over seven hours in 2012 down to 4.66 hours as of December 2013," Schwarm says.

GovStat also allows for the dynamic evolution and improvement of goals. "The County does environmental inspections of industrial facilities in the suburbs," Schwarm explains. "Two years ago, our main goal was to make sure 100 percent of the facilities were inspected. After GovStat showed we were consistently meeting that goal, we are now able to focus on the quality and outcomes of those inspections," Schwarm says.

Schwarm is excited to track other county initiatives, including public safety and health care goals. "We plan to roll out one goal per month and continue to report on its progress," Schwarm says. He continues, "The use of good, timely, accurate data, especially for a government facing tough fiscal situations, allows us to make decisions and prioritize at a high level."

19. To what extent should evaluations specifically with either experimental (sometimes referred to as "randomized control trials") or quasi-experimental designs be institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?

Socrata has elected not to answer this question, as it is outside the scope of our expertise. Should this RFI move to a Request for Proposal, we will partner with a trusted company in order to supplement any areas of work that we cannot deliver.

Bureau of the Census (USBC)

Proposal for Commission on Evidence-Based Policymaking

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Executive Summary

The Commission on Evidence-Based Policymaking (i.e., the Commission)'s authorizing legislation directs the Commission to consider how administrative and survey data "may be integrated and made available to facilitate program evaluation, continuous improvement, policy-relevant research, and cost-benefit analyses by qualified researchers and institutions." Through this directive, the Commission is exploring ways in which to increase access to, and transparency of, government data to foster greater awareness and understanding by the general public, and to promote more informed policy making overall.

In the pages that follow, we outline our thoughts and recommendations in response to each question presented in the Bureau of the Census (USBC)'s Request for Information (RFI). We include common open data challenges facing agencies today, and we discuss typical best practices that can help overcome those challenges - including workflow, data governance, the monetization of certain data sets, and the protection of sensitive data. We also offer examples of how our technology products - specifically Socrata's Open Data Platform - can improve accessibility and transparency of the Commission's data, by offering robust visualizations and narratives to help users more clearly understand the data and make educated decisions based upon that information.

Socrata's suite of open data products provides administrators and end users with:

❖ **A world class data discovery experience.** We firmly believe that users should be able to find the data they are looking for easily, regardless of their technical sophistication and familiarity with robust datasets. Across each initiative we engage in, our team ensures that accessibility and ease-of-use are of top-most priority.

❖ **A Collaboration Environment.** The Socrata Data Platform facilitates collaboration around data, through commenting, sharing, and regular updates. This promotes a thriving data-marketplace that firmly connects data producers with data consumers.

❖ **Core Integration Capabilities.** Socrata has mastered the automation of data and metadata workflows, and integration to pull data from a wide variety of systems, and programmatically distribute it to tools and software for using data. The ability to combine many shapes and sources of data into a central platform will be a main predictor of the Commission's ability to use data intuitively.

❖ **Continuously Improving Cloud-based Delivery Model.** Our data analysts and developers are constantly creating and adding new and improved capabilities, and our technologies today go far beyond what they were as recently as 12 months ago. That trend will continue, meaning our customers continuously benefit from a future-proof infrastructure that continues to evolve as technology improvements open up new innovation possibilities in the future.

Technology, People, and Process to Harness the Power of the Commission's Data

Since our founding, Socrata has worked with over 1,300 governments, NGOs, non-profits, and multilaterals organizations globally. This includes virtually all major cities in the United States, dozens of counties, roughly half of all states, 19 Federal customers, and multiple international groups.

Our team provides a unique combination of capabilities and expertise for accessing and aggregating data across disparate sources inside the enterprise. We also excel at making the data discoverable and understandable to a wide range of different user types, via downloadable export options, data visualizations, dashboards, and tailored data exploration experiences.

Socrata is the nation's leading government data platform in number of active deployments, revenue and dedicated engineers, customer success managers, apps, and innovators.

Our mission statement is **unleashing the power of government data to improve society,** and we work to achieve this by combining smart technology, people, and processes:

❖ **Technology.** Socrata provides a software as a service (Saas) platform powered by the industry leading Amazon AWS infrastructure. Our product is Commercial Off-the-Shelf (COTS) software, meaning there is no custom development or software consulting deliverables required to implement or maintain the solution.

❖ **People & Process.** Our team has outstanding hands-on experience planning, implementing and executing public sector open data and performance management initiatives. Our staff members include former government performance analysts, program managers, data analysts, and systems engineers - all of whom work exclusively on local government projects. Socrata brings best practices in both Open Data and Performance Indicators Management for government. And, we utilize a proven, Seven Step Implementation Methodology to ensure each project is designed around repeatable industry best practices.

We look forward to discussing this important initiative in greater detail with your team, and we'd welcome an opportunity to demonstrate the flexibility of our solution.

Sincerely,

Kathy Hsu, Federal Account Consultant
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Email: Kathy.hsu@socrata.com

Overarching Questions

The following sections includes Socrata's feedback on all questions outlined in USBC's RFI. Wherever possible, we have provided specific examples of where our technology products can help the Commission achieve its survey and administrative requirements, and we've illustrated specific projects on which we've achieved similar results for our customers.

1. Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

The Commission should consider taking a look at the Pew MacArthur Results First Initiative, which is a project of Pew Charitable Trusts and the John D. and Catherine T. MacArthur Foundation. The initiative works with states and localities to develop the tools policymakers need to invest in programs that will likely yield high impact. In working with 20 states and six (6) counties, the initiative is focused on: 1) creating an inventory of currently funded programs in a particular government, 2) reviewing programs which work, 3) conducting cost-benefit analysis to compare programs' likely return on investment, and 4) using evidence to inform spending and policy decisions. The initiative also comprises the Results First Clearinghouse Database, which is one-stop online resource that provides policymakers with an easy way to find information on the effectiveness of a variety of interventions.

Socrata has had a number of discussions with Pew recently given that a few of our customers, most notably Montgomery County, MD, are focused on evidence-based policymaking as well as data publishing and data storytelling. The Commission should consider the policies and practices of leveraging technology to support this work, for everything from data collection, to data governance, to data quality, and ultimately data-driven decision making and communication of results. We dive into each of these aspects in greater detail within Questions 3 and 13.

2. Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?

Centralized access to administrative and survey data is critical to promoting evidence-based policymaking. However, it is equally crucial that whomever you select as your partner is equipped to ensure the security and privacy of that data as it is published for researchers, institutions, and the general public.

Socrata follows industry best practices for ensuring the security and privacy of data that we host on our platforms, including:

- ❖ Hosting data in a secure system that offers role based access control - i.e., only those on a "need to know" basis are given access;
- ❖ Establishing data governance and lifecycle practices with customers like the Centers for Disease Control, UN Capital Development Fund, and other organizations that ensure data conforms to federal law around personally identifiable information

- ❖ Creating views on top of private data that can be shared with wider audiences, yet hide information that is meant to be internal only;
- ❖ Maintaining physical data security measures, which includes replicating data between three different AWS Availability Zones, in each of two geographically separated AWS data centers. Each zone can power the entire Socrata platform, as well as replicate the database write-ahead logs in near-real-time and take full backups every three days. Backups are retained for 30 days, and Socrata has an RTO target of 96 hours in the event of catastrophic failure of the AWS environment.

Furthermore, Socrata fully complies with FedRAMP regulations for responsible disclosure and notification, in the case of breach, leakage, or security incident, and we maintain an Information Security Contingency Plan that covers business continuity, as well as incident response procedures. This plan is reviewed and tested annually, and the plan and test results can be made available upon request. We maintain a FISMA-Low ATO, and we inherit our physical security measures from AWS. In addition, Socrata is currently in process to receive FedRAMP certification. We have completed our audit and are working with a cabinet-level agency to finalize the process and achieve our Authority To Operate (ATO). To see the latest on our current status, please visit the Socrata CSP page on the FedRAMP website.

Data Infrastructure and Access

3. Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?

One of the biggest transformations in modern government has been the pivot to data transparency and efficiency. Traditional data was often siloed - locked up within internal government networks and servers, making highly valuable information inaccessible to other departments, researchers, policy makers, and public users who could benefit from it most. The move towards data visibility has led to sweeping improvements across the government, providing the public and key stakeholders with instant access to critical data and performance measures that can guide more informed decision making.

Foundational and policy-specific evidence are vital to the creation of specific programs and legislation, and this evidence relies heavily on survey and administrative data, including: large-scale administrative data; program-specific administrative data; general purpose survey data; and study-specific survey data.

Best Practices for Opening Survey Data

Because of survey complexity, often this data remains in formats that are inaccessible or unusable to the general public. Existing government data infrastructures can be modified to facilitate access to, and sharing of, administrative and survey data by:

- ❖ Uploading it to a centralized platform that enables easy sharing among internal teams and external users, as needed;
- ❖ Ensuring data is captured in a machine-readable, API-enabled format;

❖ Increasing data accessibility through easy-to-use search features, and proper metadata classification for filtering;

❖ Promoting scalability - making it easy to build on top of the display data in a visual, easy-to-understand format.

Socrata Open Data Platform for Optimized Transparency & Accessibility

Socrata offers a unique combination of capabilities and expertise for accessing and aggregating data across disparate sources. On every data initiative we engage in with our clients, our focus is on making data discoverable and understandable to a wide range of different user types. We do this through sophisticated data visualizations, easy-to-use dashboards, contextual narratives, flexible download and export options, and highly-tailored exploration experiences.

The **Socrata Data Platform** is a cloud-based, turnkey, software-as-a-service (SaaS) solution designed from the ground up to simplify the process of data publishing and data access.

High-level Socrata Data Platform architecture.

It empowers end users with tools for ad-hoc data consumption, exploration and visualization, and provides capabilities that enable the sharing of that information across multiple channels. The platform is delivered as a web portal that allows users to:

❖ Perform robust searches for data and information.

❖ Interact with that data by sorting, filtering, and performing group-by and roll-up operations.

❖ Create real-time visualizations on top of the data with charts, graphs and maps and save these visualizations to user profiles.

❖ Share data and saved views in context rich reports, dashboards and stories to extend its reach and utility.

❖ Integrate, extract and cleanse a variety of shapes and sizes of source system data in real time and present that information in a consumption formats.

- ❖ Empower advanced users and developers with machine readable data, APIs and tools to create sophisticated services, robust interfaces and dynamic mobile applications.

For USBC, this platform would offer a number of important benefits across the data lifecycle, including: acquiring data; preparing the data; providing data; and monitoring usage and outputs. We see these benefits as including:

- ❖ **A world class data discovery experience.** Socrata's world class data discovery experience would allow USBC users to find the data they are looking for easily, regardless of their technical sophistication and familiarity with robust survey results and datasets.
- ❖ **A Collaboration Environment.** The Socrata Data Platform facilitates collaboration around data, through commenting, sharing, and regular updates. It promotes a thriving data marketplace that quickly connects data producers with data consumers to foster informed action as a result of that data.
- ❖ **Core Integration Capabilities.** Socrata's products allow for the automation of data and metadata workflows, including the integration of data from a wide variety of systems.
- ❖ **Continuously Improving Cloud-based Delivery Model.** New and improved capabilities and features are constantly being added to the Socrata suite of products, which means USBC administrators would benefit from a future-proof infrastructure that continues to evolve as technology improvements open up new innovation possibilities in the future.

Socrata Work Samples Relevant to USBC's Data Initiative

Socrata's work spans federal, state, and local government projects, and we have highlighted a specific example below from the CDC - which centers on the hosting and administration of survey data:

CDC's Chronic Disease and Health Promotion Data & Indicators

Increasing and improving access to CDC's chronic disease and health promotion data and indicators is a key component of addressing the burden of chronic diseases in the United States. Chronic diseases are responsible for 7 of 10 deaths each year, and treating people with chronic diseases accounts for 86% of our nation's health care costs.

In January 2015, the National Center for Chronic Disease Prevention and Health Promotion at the CDC launched Chronic Disease and Health Promotion Data & Indicators that aims to enable quick access to data and indicators across health areas such as tobacco use, reproductive health, oral health, cancer, legislative actions, and behavioral risk factors – to name only a few.

As an early adopter in the Center, the Office on Smoking and Health migrated the current and historical state-level data on tobacco use prevention and control housed in the State Tobacco Activities Tracking and Evaluation (STATE) System to the new data Tobacco Use Portal and opened the door to using a new technology portfolio to reinvent the STATE System for 2015.

Now in Socrata, users such as data analysts, policy staff, and researchers can quickly view data in colorful charts, graphs and maps, create custom filters to subset data, download data in a variety of formats, and even receive updates when data of interest has been updated. The featured dataset below displays a map of US states with comprehensive smokefree air laws, which protect the public from exposure to secondhand smoke.

4. What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation, and analysis purposes?

The real power of data to drive evidence-based policymaking is unleashed when researchers and policymakers can combine data and present it to legislators and to the public in novel ways. In order to facilitate this, data needs to be on a platform that allows users to easily build on top of that information to provide greater insight - going beyond simply presenting raw data, to offer insight into why it matters, and ensuring users understand its accuracy and integrity. One way the underlying data infrastructure can facilitate the merging and linking of data is to provide programmatic access to data through application programming interfaces (APIs). APIs allow developers to build tools that extract data from multiple datasets or other web services and merge them using the attributes of the data itself, or more complex methodologies. For researchers who may not be developers or as technically sophisticated, APIs allow them to feed data into commonly used statistics and visualization tools, like Tableau and SAS.

The Socrata Open Data API provides an open, standards-based, RESTful application programming interface for datasets. Any dataset uploaded to the Socrata platform is automatically provided with a RESTful JSON endpoint, allowing developers to leverage data within the platform through a familiar and powerful API built on open standards. The Socrata platform also has libraries for development languages like R, which are commonly used in the statistics community.

Socrata's open APIs give users the power to:

❖ Upload data in a central platform, allowing users to build on top of it;

❖ Merge and link data through visualizations;

❖ Combine data with APIs and and build custom tools on top of it;

❖ Take into account the fact that governments cannot account for every single use of data, thereby leveraging APIs to give end users flexibility to build the apps they need;

❖ Make data accessible via endpoints, allowing common visualization and analysis tools to be used;

❖ Unlock machine processing of datasets; and

❖ Empower developers to combine datasets with other web services for new mashups and applications.

5. What challenges currently exist in linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

Data challenges that exist with inter-agency data sharing - both between federal agencies themselves, and between federal and state agencies - are typically self-imposed. Often, agencies at all levels have adopted formal and informal policies (e.g., sharing of personally identifiable information, other sensitive information, etc.) over the years - sometimes with limited understanding of how these policies may contribute to the difficulty around sharing within government or between governments.

These policies are often complicated further by technical complexities, including differences in data schemas and inconsistencies in common data terms used.

We recommend that the Commission lead a review of all existing policies - with strong federal, state, and local executive leadership - to identify archaic data sharing policies, and create an action plan to refine these policies to promote greater accessibility and use.

6. Should a single or multiple clearinghouse(s) for administrative and survey data be established to improve evidence-based policymaking? What benefits or limitations are likely to be encountered in either approach?

Socrata's recommendation is to centralize all data on a single platform to ease administration and data management. However the decision to establish a single warehouse, or multiple clearinghouses for administrative and survey data, should be based on the administration model of that clearinghouse. It is likely that the owners, curators, and publishers of the data will be different from the consumers - and not all will have the ability to edit and/or view every dataset. If a clearinghouse does not support the unique administration of assets, it may be valuable to segregate data into multiple clearinghouses with different permission models. A data platform like Socrata that enables roles based access control can house all data in one, centralized clearing house and maintain administrative boundaries.

The Socrata platform limits who can see and perform actions based on defined end user permissions, and depending on whether a dataset is recorded as "private" (i.e., internal only) or "public" (i.e., published externally for researchers and institutions). A role defines the types of actions that someone can perform across all datasets on the domain.

Administrators on a Socrata-powered data site are able to assign any number of roles to other users, allowing for delegation of tasks on the site and enabling other users to create and manage datasets. Socrata users can have roles on a domain, which define the types of actions they can perform *across all datasets on that domain, as well as high-level operational control of the domain itself.* Examples of these actions include publishing data, adding features, or managing users. Socrata users can also be granted specific user permissions per dataset. A permission defines the types of actions that someone is able to perform *on a specific dataset.* Examples include editing that dataset, viewing that dataset, and publishing that dataset.

7. What data should be included in a potential U.S. government data clearinghouse(s)? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

The data that the Commission should consider including really depends on the problems it is trying to solve, and the related programs and policies where greater evidence building will be used to drive more impactful practices. Whatever data the Commission decides to include, it should be filterable and searchable in a number of ways, such as by broad policy area, issue area, department, data type, data source, and perhaps some type of rating as to its usefulness - and in the case of an intervention, whether it's proven. Each dataset should also be API-enabled for greater utility across applications.

In terms of data specifically, the Commission should first consider broad themes in the areas of: economy, health, education, transportation, agriculture, environment, housing, and security, and then drill deeper into specific policy areas under each broad theme. The Commission should emphasize

data that has multiple applications, can be used by multiple parties with few barriers, and has strong re-use value.

8. What factors or strategies should the Commission consider for how a clearinghouse(s) could be self-funded? What successful examples exist for self-financing related to similar purposes?

Socrata's recommendation for self-funding its clearinghouse is to offer full access to specific data sets for free, but charge users for access to more detailed reports, data visualizations, or highly-valuable analysis and narratives (e.g. specific benchmarking reports and analysis etc.). We work with one customer in particular - the Carbon Disclosure Project (CDP) - who offers free data across a number of key areas, but charges users a specific fee for access to its premium data sets.

CDP's purchasing page for access to its premium data.

Premium access for CDP users includes entry into a larger collection of primary environmental data, maximum flexibility to use its raw data, and historical data going back five years, providing greater transparency into how companies have evolved throughout the years. If the Commission can identify specific data that is uniquely valuable, offering a similar model is likely the easiest way to at least partially self-fund.

9. What specific administrative or legal barriers currently exist for *accessing* survey and administrative data?

In the White House Commission on Evidence-Based Policymaking's white paper, Barriers to Using Administrative Data for Evidence - Building, it states that "Agencies need infrastructure, such as trained personnel, formal written procedures, and information technology tools, to consider data sharing requests and to develop and implement data sharing agreements" to overcome barriers for data use. Many of these barriers also exist for accessing survey and administrative data. In order to use data, it needs to be collected, curated, centralized, published, and shared between organizations so that

researchers can access and use it effectively. It also requires a methodology that addresses all these stages in a complete and robust way.

Our projects are typically divided into three high-level phases that include: **plan**, **build**, and **handoff**. Throughout the project the Socrata team focuses on:

❖ Establishing goals and success measures, and working closely with stakeholders to develop clearly defined (and ideally measurable) goals.

❖ Defining the proper user experience (UX) for end users. Techniques such as wireframing and rapid prototyping are employed to elicit user feedback and suggestions to inform the UX design.

❖ Working with data owners to establish a dataset on-boarding process, including:

   ➢ Surveying and identifying relevant datasets,

   ➢ Cleansing and formatting data, and

   ➢ Processing metadata.

❖ Building and managing negotiations and trusted relationships with key data providers, with respect to public information, privacy, data sharing, and level of access.

❖ Managing roll-out and an ongoing enhancement strategy, and maintaining documentation.

❖ Promoting industry knowledge and leadership regarding innovation trends and emerging market shifts.

❖ Effectively maintaining key contacts related to survey and administrative data, community engagement, and data integration.

Coupling a strong, repeatable program methodology with a technology platform that removes current barriers to accessing survey and administrative data is key to the success of a good data program. The Socrata platform provides data publishers with the ability to curate metadata and any supporting documentation, and equips users with multi-level catalog search and filtering capabilities to find appropriate data and then make user of it.

10. How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions?"
Socrata has elected not to answer this question, as it is outside the scope of our expertise. Should this RFI move to a Request for Proposal, we will partner with a trusted company in order to supplement any areas of work that we cannot deliver.

11. How might integration of administrative and survey data in a clearinghouse affect the risk of unintentional or unauthorized access or release of personally-identifiable information, confidential business information, or other identifiable records? How can identifiable information be best protected to ensure the privacy and confidentiality of individual or business data in a clearinghouse?

When dealing with sensitive data that may include personally-identifiable information or other confidential information, it is of critical importance to establish robust data governance and lifecycle management practices. Socrata's data consultants work with organizations on a daily basis to establish data practices that ensure PII and confidential information is not transferred from source data systems to clearinghouses that are open to researchers and other public with access.

According to best practices data is processed through an extract, transform, load (ETL) workflow that scrubs it of any sensitive information before it is published to a clearinghouse. Separating the data that is housed in the clearinghouse from the source systems prevents any accidental contamination and dissemination.

Before data is published on the Socrata platform it also goes through an approval process. Datasets that are set to be published go through stages, or gates, with configurable settings for approval stages with assigned gatekeepers for each stage and controlled notifications. This approval queue allows individuals to approve or reject datasets and provides view of all the datasets currently in the publishing lifecycle. Any sensitive information that accidentally made it past the ETL process can be flagged by administrators before it is published on the platform.

12. If a clearinghouse were created, what types of restrictions should be placed on the uses of data in the clearinghouse by "qualified researchers and institutions?"

Socrata believes data access should be restricted by user role, and by "need to know." For example, researchers should only have access to data that is relevant to their project(s), and even then, only if their role on the project team requires that access. Adhering to this concept of "least privilege" minimizes the risk that potentially sensitive project data will be unduly exposed.

13. What technological solutions from government or the private sector are relevant for facilitating data sharing and management?

Socrata's suite of open data products are highly relevant for the facilitating of data sharing and data management. We provide multiple tools to ensure our customers' data is provided to the right audiences at the right time, and our solutions center on promoting the highest levels of data discoverability, visualization and context, and sharing and usability:

Data Discoverability
Socrata's Open Data solution provides better access to quality data and is used extensively by elected officials and policymakers, government employees, residents and businesses, and developers and advocates. Using Open Data Portal allows users to:

❖ Publish datasets on any topic (and these data sets can be up to hundreds of millions of rows long), including: geospatial data, financial data, public safety data, and much more;

❖ Use a global search interface to find the data, and take advantage of built-in SEO optimization to enable data to be found via standard web browser searches;

❖ Provide insight into your most popular datasets with a summary page that captures important information about your uploaded content.

Visualization and Context

Charts and graphs would allow USBC staff to transform data into visualizations to promote better understanding of trends and gaps. Users can easily create and maintain customized charts, graphs, and other data visualizations for public data use, without having to build and maintain a data infrastructure on their own. We offer 13 different visualization formats available out-of-the-box, which can be dynamically applied to datasets for maximum flexibility in displaying critical information. These include:

Area chart | Bar chart | Bubble chart | Column chart | Donut chart | Line chart | Pie chart | Stacked bar chart | Stacked column chart | Timeline | & Tree map

Furthermore, we have developed our own charting library using the D3.js toolkit, which provides a wide range of configuration options, dramatic colors, as well as great performance and stability. Charts will always support the full set of values calculated and rendered, with no limitations to scrolling across the full dataset in a chart, in order to display every value. They will auto-scale dynamically depending on type, and the axis placement can be dragged around on the page to provide the best display on your screen. Visualization legends also support conditional formatting.

Visualization options using Open Data Portal.

Socrata Perspectives augments the Open Data Portal by helping users connect the dots between policy and outcomes. With Socrata Perspectives, users are able to easily and quickly produce narrative reports and stories with drag-and-drop functionality that allows for text, images, maps, and data visualizations. The screenshots below show a sample dashboard, before context and data is added (left), and and after (right).

USBC employees can leverage a drag-and-drop toolkit of images, visualizations, text, video and banners to create compelling reports and dashboards based off of live data.

Resulting reports pair data with text and will track updates as they are published from the SSP and EHRI Data Warehouses.

Sharing and Usability
Maximizing the value of data means making it available to as many people as possible. Socrata provides several tools to empower data users to easily access and utilize the data in creative ways.

❖ Share any data asset on Socrata's platform with others directly through the built-in data catalog or on social media.

❖ Embed content within existing websites or build a customized, attractive open data homepage.

❖ Syndicate datasets from other nearby localities to increase the context and meaning of the data.

❖ Give technical developers, innovators, and entrepreneurs easy access to the data through the Socrata Open Data API (SODA).

14. What incentives may best facilitate interagency sharing of information to improve programmatic effectiveness and enhance data accuracy and comprehensiveness?

There are a number of ways to incentivize the facilitation of interagency data sharing, including:

❖ Making data sharing a condition of federally-funded research;

❖ Working with OMB to develop a fund that will support these efforts across agencies through the budget process;

❖ Setting collaborative goals for improving program performance through evidence-based practices that cut across mission areas and departmental silos and that require shared data to drive progress;

❖ Rewarding researchers for releasing and sharing data through proven citation systems so they receive credit and exposure;

❖ Providing unique opportunities for "data sharers" from agencies across government to discuss promising practices in a variety of fora with opportunities to lead a series of studies, sponsored by the Commission and perhaps the White House, on programmatic impact through evidence-based policymaking; and

❖ Providing a common data platform, available to all who participate as "data sharers", for data sharing governance, management, and analysis.

Data Use in Program Design, Management, Research, Evaluation, and Analysis

15. What barriers currently exist for *using* survey and administrative data to support program management and/or evaluation activities?

Lack of documentation and appropriate metadata are two barriers to effective data use, after that data has been published publicly. It is critical to augment raw data with metadata and accompanying documentation so that users can determine if and how that data is appropriate for them to use. As the Barriers to Using Administrative Data for Evidence - Building states: "Data curation also includes the maintenance of relevant metadata and other documentation. Prospective data users need at least minimal documentation to assess fitness for a given use, and more detailed documentation enables more informed and appropriate use." A platform that allows data publishers to curate and publish metadata is crucial to data accessibility and understanding, and the Socrata technology stack and methodology makes metadata a priority.

Socrata contains standard metadata fields and also allows for custom definition of required and optional metadata fields. Specific fields, drop-down menus, and other metadata entry points can be added by administrators to ensure that all uploaded data follows an existing schema, and is not

uploaded without complete metadata entry and definition.

In addition to being able to configure all metadata content and fields during upload, any number of files can be attached to a datasets to allow for full documentation to accompany these datasets. A data dictionary, or a guiding document with detailed descriptions of the dataset and its metadata can be attached in this way. Any attached documentation will always accompany the dataset, and administrators can also configure the metadata templates to ensure all data sets are documented accurately.

16. How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?

Socrata has demonstrated excellence in developing high-profile open data portals, and in addressing administrative, usability, and ongoing support needs. Our clients include federal, state, and local governments, and in the process of completing over 1,300 projects, we have seen how data can help organizations increase transparency, encourage engagement and, in turn, improve policies and program. Below are a few examples:

Centers for Medicare and Medicaid Services

As the biggest single payer for health care in the U.S., the Centers for Medicare and Medicaid Services (CMS) is playing a leading role in making the costs of healthcare more transparent and easier to compare across geographies and providers. Its sites, data.cms.gov and data.medicare.gov, share data on the costs for procedures at different hospitals, as well as data on quality and efficacy, such as readmission rates by facility within 30 days after discharge.

The release of data is a critical component of CMS's strategy to drive improvements in the U.S. healthcare system. "Data transparency is a key aspect of transformation of the health care delivery system," says CMS Administrator Marilyn Tavenner.

By improving the availability of data on cost and quality, CMS has catalyzed competition in a largely opaque market. Their open data sites empower both consumers and payers and provide information in a variety of formats that serve many audiences. For example, access to the raw, machine-readable data available behind any visualization allows sophisticated users, such as researchers and data scientists, do in-depth analysis. It also allows private sector providers to benchmark themselves and understand how they compare against their competitors, hospitals, insurance companies, and individual providers.

Under the Tavenner's leadership, CMS has made releasing data a key part of its strategy to make the US healthcare system more transparent, affordable, and accountable. CMS has been releasing cost and quality data to the public domain since 2011.

"Data is the lifeblood of our healthcare system, and for too long it has not been optimized by its full potential," says Tavenner.

City of Boston

The City of Boston had been publishing their budget in multi-volume PDFs for years. While there's a wealth of information contained in these volumes, it can be difficult for the public to understand where the City is allocating resources and for what purposes. In 2014, Boston Mayor Marty Walsh issued an

executive order to improve the City's open data efforts. Three months later, the City released a web-based interactive application – Socrata's Open Budget -to publish both their operating and capital budgets. Open Budget has improved the City's financial transparency and given everyone – city employees, reporters and researchers, and the public – easy access to the City budget.

Open Budget allows the City to publish to single portal that anyone can access. Because the budget data is public and easy to navigate, more audiences – citizens, reporters, academia – are able to review the exact same datasets that the government uses.

The City had a fairly painless migration from our original datasets to the Open Budget data schema. "We were lucky, our data was mostly well-formed," said Dwelley "We had a few items that needed customization, but Socrata handled that for us."

There have been immediate internal benefits from the City's open data program. Fewer requests for information free up staff time and consistent reporting across departments helps with information sharing. But Boston is also excited about what citizens can do with the data now that it's so easy for them to access and understand.

Code for Boston hosts a weekly hack night that encourages "developers, designers, urban planners, and data geeks" to use technology and publicly available data to solve community problems. The Mayor's Office of New Urban Mechanics taps the data to help understand problems as diverse as school transportation and improving the quality of Boston's roads.

City of Seattle

The Seattle Police Department, the birthplace of bicycle patrol units, has a track record of innovation and a forward-thinking approach in its publishing of public safety data. In 2012, a federal investigation over charges of excessive use of force, as well as related concerns regarding officer supervision and internal investigations, resulted in an agreement between the Seattle Police Department and the U.S. Department of Justice. The two organizations crafted a reform plan to boost the SPD's oversight, training, and reporting.

The department achieved extraordinary progress in the reform areas over the following two years, including pioneering the publishing of public safety data. Momentum increased in 2014 with the appointment of Chief Kathleen O'Toole, as well as the launch of SeaStat, the SPD public safety data portal created in partnership with Socrata.

The SPD joined forces with the city's Chief Technology Officer to cosponsor the City of Seattle's privacy initiative. Together, they built upon the city's race

and social justice initiative, promoted a set of guiding privacy principles, and crafted strategies to increase transparency, while also protecting privacy rights of citizens. These efforts will help city departments assess privacy issues around open data.

17. To what extent can or should program and policy evaluation be addressed in program designs?

Program and policy evaluations include policy-specific evidence that allow organizations to determine whether a particular program or piece of legislation is achieving its objective. Socrata is a strong proponent of data-driven, evidence based government. When appropriate, these evaluations should include performance measures and indicators that can be addressed and evaluated in program design. Socrata has worked with organizations at the state, local, and federal level in collecting and analyzing

evaluation data and presenting it to the public to drive transparency into program and policy effectiveness. We provide specific examples below.

18. How can or should program evaluation be incorporated into program designs? What specific examples demonstrate where evaluation has been successfully incorporated in program designs?

Cook County's performance management program began in January of 2011, when the County passed an ordinance that required each office and agency to set goals and collect operational data around those goals. The County began a program to create a strategic plan around the use of open data for decision-making and communications. Andrew Schwarm, Chief Performance Officer of Cook County, was the project lead tasked with finding a performance measurement tool.

"We faced two main challenges when we began this program," Schwarm says. "The ordinance requires weekly meetings to review our goals and measure performance. There is also a reporting requirement."

The County started by publishing reports quarterly in PDF format. "Quickly, we saw it was difficult for residents to dig into these dense reports and digest the information in a useful way," Schwarm explains. "We needed a tool that would allow us to take the wonderful data we collect quarterly, around 750 data points over 50 agencies across the County, and publish it in a usable way. Performance Data Cloud (formerly known as Open Performance) jumped out as the solution that made the most sense for us."

An early adopter of the GovStat platform, Cook County chose a two-phase implementation process. First, the County replicated the PDF data and created reports for each department. "GovStat allowed us to take the data already gathered and put it on a more flexible, user-friendly, open, and transparent platform," Schwarm says.

Once the data was updated and made available to the entire organization, Cook County entered phase two of the implementation: using data to drive decisions. "[Data-driven decision-making] is now part of our culture and the way we do business," explains Schwarm. What's more, accurate data allows Cook County to tell accurate stories.

One early goal emerged from the Finance and Administration Department. "We started by measuring employee time and attendance. Using GovStat and the data we collect helped us identify policy abuse or data entry errors, reducing average employee sick leave per month from over seven hours in 2012 down to 4.66 hours as of December 2013," Schwarm says.

GovStat also allows for the dynamic evolution and improvement of goals. "The County does environmental inspections of industrial facilities in the suburbs," Schwarm explains. "Two years ago, our main goal was to make sure 100 percent of the facilities were inspected. After GovStat showed we were consistently meeting that goal, we are now able to focus on the quality and outcomes of those inspections," Schwarm says.

Schwarm is excited to track other county initiatives, including public safety and health care goals. "We plan to roll out one goal per month and continue to report on its progress," Schwarm says. He continues, "The use of good, timely, accurate data, especially for a government facing tough fiscal situations, allows us to make decisions and prioritize at a high level."

19. To what extent should evaluations specifically with either experimental (sometimes referred to as "randomized control trials") or quasi-experimental designs be institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?

Socrata has elected not to answer this question, as it is outside the scope of our expertise. Should this RFI move to a Request for Proposal, we will partner with a trusted company in order to supplement any areas of work that we cannot deliver.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0250
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I am strongly apposed to the data mining being collected on school age people. This is communist style education and a enemy toward a free and fair state for all. We need to bring back local control.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0251
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Ibelieve in informed consent. I oppose non-consensual data mining.Stop thismadness!

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0252
Comment on FR Doc # 2016-22002

Submitter Information

Name: SARA ALLEN
Address:
   Indianapolis, IN, 46234
Email: scubatsa@aol.com

General Comment

Non-consentual information must never be collected. This must stop.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0253
Comment on FR Doc # 2016-22002

Submitter Information

Name: Shari Ollis

General Comment

I believe in informed consent.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0254
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Hamilton

General Comment

Stop treating people like numbers. Treat them and their privacy with respect. Their children are not your children, and raising them is NOT your God-granted stewardship. It is so arrogant to assume such a role.

It is not the business of government to intrude in people's lives. Furthermore, you will spend billions of dollars on data collection to find out that it is useless because it you can't accurately characterize the complexity of people's lives with a few data points.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0255
Comment on FR Doc # 2016-22002

Submitter Information

Name: GN Olson

General Comment

Thank you for considering the intelligent and reasoned points made by commenter USBC-2016-0003-0233, with whom I agree strongly. Government agencies are at best moribund, at worst, criminal, in their handling of private information. Please help the United States return to its status as one of the most free countries in the world. Do not approve this initiative. Thank you.

PUBLIC SUBMISSION

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0256
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Tired of being lied to and manipulated. I am against data mining. Enough. Our children deserve a better world, a free world not the world described in "1984"
.

PUBLIC SUBMISSION

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0257
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I oppose data mining without informed consent. Have some integrity and stop womb to tomb tracking.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0258
Comment on FR Doc # 2016-22002

Submitter Information

Name: Deborah Guebert

General Comment

Anyone who knows how governments, including ours, have misused dossiers of information on private citizens in the past, will have no confidence in allowing the federal government to compile and retain individually recognizable data files on innocent people. Memories of the crimes perpetrated by HItler's Third Reich motivate the German people, even to this day, to adamantly oppose the general collection of data even by internet operators such as Google. Those who do not pay attention to history are foolish indeed. Human nature has not changed, and the temptation to abuse power is still one that very few are able to resist. As the saying goes, "Power corrupts. Absolute power corrupts absolutely." We neglect that wisdom to our peril.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0259
Comment on FR Doc # 2016-22002

Submitter Information

Name: Paul Adcock

General Comment

I think this is a bad idea, to say the least. I can see where all of this is going, to a control economy like in China where the government picks the occupation of people. All of this federal College and Career Ready, Social-Emotional Learning, Career Technical Education, Common Core, etc are just codewords for setting up a cradle to career controlled system.

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Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0260
Comment on FR Doc # 2016-22002

Submitter Information

Name: Oak Norton

General Comment

Here's an idea. Stop data mining without the consent of those whose data you are gathering. Stop encroaching on personally identifiable information. It's personal. That's the point.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0261
Comment on FR Doc # 2016-22002

Submitter Information

Name: Michael Bird

General Comment

Our personal information is not for your use. Keep your hands off of it. This is just plain wrong. Stop it.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0262
Comment on FR Doc # 2016-22002

Submitter Information

Name: JaKell Sullivan

General Comment

American taxpayers should not foot the bill to lose their privacy. The loss of personal privacy equals the loss of liberty. If the CEP, being funded by taxpayers, is working to make databases interoperable, than the taxpayer deserves to be able to make an informed decision about whether they want to be tracked. If it's our private information, it is our private property and the United States government was, in part, founded on the principle that property is sacred--that the conscience is sacred. Please protect and preserve individual liberty by opposing all efforts to interlink government databases. And, by consulting with taxpayers about what privacy should look like in the 21st century. First, do no harm.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0263
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Data based information!?? Are you kidding? Because the DMV is a bastion of customer service oriented, friendly people? Because the USPS is known for its business acumen and employees are overcome with joy? Because colleges and universities are focused on knowledge and using that knowledge to make the world a better place for everyone. Everyone or you are not making it a better place. Stay away from kids. The mandatory six hours a day translates to maybe a half hour of education. Not better. Far worse.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

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Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

See attached file(s)

Attachments

Metzenbaum to CEP121416

Commission on Evidence-Based Policymaking Comments
Docket Number 160907825-6825-01

December 14, 2016

Submitted by Shelley H. Metzenbaum, Ph.D.
Former OMB Associate Director, Performance and Personnel Management
Independent Consultant and Senior Fellow, Volcker Alliance

1. **Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.**

Let me preface my discussion of successful frameworks, policies, practices, and methods by clarifying what I mean by the term "successful." Successful data and evidence-rich frameworks, policies, practices, and methods (hereafter referred to as "Frameworks etc.") are those used by a wide variety of users for a wide variety of uses. Data, analytics, and research findings inform decision-making, action, and communication that lead to better performance on multiple dimensions, including outcomes/impact, return on spending, fairness, understandability, democratic accountability, trust, and individual consumer choice. Further, successful Frameworks etc. are constructive; they motivate people in government, grantees, goal allies, and others to want to use and communicate data and other information for decision-making. They do not make them fear the data or worse, feel tempted to manipulate or implode the measurement system and distort or discredit evaluation findings.

Unfortunately, many government Frameworks etc. are not successful. Some produce data and evidence that are of limited usefulness or, even, useless. Others produce relevant data and research findings that, independent of concerns about privacy or confidential business information, are underutilized or misused because few know they exist, know now how to analyze or interpret the information, or can easily and affordably access the information.

Success necessitates that people are aware that useful information exists, understand how to access and interpret it, easily and affordably access it, feel motivated to apply the data and research findings, regularly use them to inform decisions, and readily contribute to data and evidence generation to fill critical knowledge gaps. Successful Frameworks etc. produce data, analyses, evaluations, root cause analyses, and other insights that are routinely used by a wide variety of data users (see List 1, re likely users, prior to the cases below) for a wide variety of uses (see List 2 re kinds of uses.) Successful Frameworks etc. can be national in scope, but they can also be local, state, regional, sector-specific, or problem/opportunity-specific in scope to inform real-time, field-based decision-making.

Succinctly stated, successful frameworks use data and other evidence to:
- illuminate (what works, what works better, what doesn't, why);
- nominate issues for government attention;
- motivate;
- allocate; and
- communicate to enlist, engage, share, learn, inform individual choice, and strengthen democratic accountability.

Successful Frameworks etc. don't just answer the questions, "What works?" and "What works where, when, and for whom?" They also answer the questions, "What works better and why?" and "How can we accomplish the same or more at a lower cost?" In addition, they use data and other evidence to inform the selection of priorities, to decide the ambitiousness of goals, and to

design the path to progress. Plus, they use data and evaluations to improve service (including regulatory) quality to make interactions with government more understandable, timely, predictable, and fair and to prevent unwanted side effects.

Successful frameworks consider and design what and how to collect, store, analyze, present, and share evidence to make it more useful to more users. In addition, they take great care to make sure those being measured do not feel overly motivated to manipulate or implode the measurement system.

The remainder of the answer to this questions provides 2 lists, one of likely users and one of kinds of uses, as well as 10 short cases that illustrate both useful, constructive, purposeful data and evaluation Frameworks etc. in the U.S. government and in non-federal organizations, as well as problematic Frameworks etc.

- The first three cases (the U.S. National Highway Traffic Safety Administration's approach to traffic fatality data, the U.S. Coast Guard's use of data to work with a high-risk sector to reduce sea-based fatalities, the multi-decade effort of the U.S. Department of Health and Human Services using data to set goals to catalyze national and sub-national action to improve human health) address a common Federal government challenge: preventing bad things from happening and keeping costs as low as possible when they do. The first and third focus on specific problems, while the second focuses on a specific sector. Lessons from these three Frameworks – all of which count and characterize harmful incidents in a way that allows assessment of their causes, patterns, and relative import – can be applied to the data and evaluation systems of the large number of Federal programs that try to prevent and reduce harmful incidents such as fires, accidents, explosions, spills, non-compliance (inspection findings), and even poor customer/constituent interaction. More challenging (but still measurable and manageable by counting and characterizing near misses and early warning indicators) are programs that try to prevent low-frequency, high-consequence events, such as major chemical accidents. Even more challenging are programs that try to reduce hard-to-count harmful incidents, such as drug-running and human trafficking, although progress is being made even in these areas using predictive analytics comparing what should be (e.g., registered boat movement) and comparing with what is (observed boat movement.)

- The fourth case describes efforts by one regional office of the U.S. Environmental Protection Agency to use data, and a clear, well-framed outcomes-focused goal to accelerate the cleanup of the Charles River in Massachusetts. In this case, observational data (water quality) is used rather than incident data and the data are collected by volunteers.

- The fifth and sixth cases use transactional data, sales data in a supermarket and timeliness data for a package delivery company, while the seventh uses data that not only tracks but also supports the work of welfare caseworkers.

- The eighth, ninth, and tenth cases describe unsuccessful Frameworks etc. Case 8 discusses why organizational report cards failed for hospitals, education, and motor cycle helmet laws, while the ninth and tenth cases briefly touch on less successful data collection efforts for Head Start and data analysis efforts for managing federal human resources.

My response to this question is long, and I apologize for that, and assure you that my answers to the other questions are shorter. I nonetheless hope you will give these cases serious attention. , They support many of the other responses and my recommendations. Also, my overriding objective with these cases is to underscore the need for the Commission, in its recommendations,

to pay careful attention not just to the what and how of data and other evidence, but also to the users (both inside and outside government), uses, and mechanisms that motivate the generation and use of federal data and other evidence.

List 1: Likely Users

Federal information systems tend to be organized around agencies, not people, problems, or places. To make data more useful to more people to solve problems and pursue opportunities, federal agencies, working individually and across agencies, should adopt human-centered design principles and give intentional and continual attention to identifying, connecting with, and getting feedback from key audiences for federal information throughout all phases of information management.

We often think about program managers, policy makers, and budget officials using data but data users also and especially need to include:

- Those on the front line delivering public goods or services, in government and in delivery partners, including grantees in other levels of government and non-profit organizations;
- Supervisors, regional managers, suppliers, technical assistance providers, trainers, logistical support, and others who strengthen or weaken front-line capacity;
- Goal allies who want to advance the same or similar goals to the ones government seeks to advance or who want government to embrace other goals, such as the global sustainable development goals; and
- Those who receive goods and services from government, especially those who can choose among providers or the timing or location of receipt.

List 2: Kinds of Uses

Government agencies should be expected to analyze, visualize, and disseminate their data and evidence to make them useful for multiple purposes, including:

- detecting and understanding problems and opportunities;
- informing priorities;
- framing and setting goals;
- supporting the search for effective and ineffective practices to speed uptake of the former and discourage repetition of the latter;
- triggering discovery of the causal factors government and its delivery partners can influence to inform treatment and delivery design;
- helping front-line workers and others learn from their own and others' experience, while motivating continual improvement and collaboration on measured trials to discover better practices;
- enlisting and engaging goal allies;
- motivating continual improvement;
- informing individual and organizational choices;
- supporting private sector decision-making, thriving markets, and entrepreneurship; and
- strengthening accountability to the American people by building understanding of what government tries to do, why, and how well.

Case 1: The National Highway Traffic Safety Administration

The experience of the federal road (now highway) program illustrates the potential of measurement as a tool of influence. When the first federal road office was established in 1904, it made information the center of its strategy for working with states. It gathered information about road conditions, mileage, and program characteristics in every county and conducted experiments to find effective road- and bridge-building practices and then frequently disseminated its findings to other levels of government. Information collection, analysis, and dissemination was and is a core federal highway function. In 2000 the Federal Highway Administration modernized its knowledge management role by launching online versions of its publications and databases to reach more interested users.

Congress requires the secretary of transportation to report annually on the condition and performance of the nation's roads but does not mandate inclusion of state-specific data in the annual report. The Federal Highway Administration opted to establish state reporting requirements through regulation.

Despite the absence of federal law mandating state reporting, states have willingly delivered data to the federal government for more than fifty years. Why? According to one agency official, "We have been doing highway statistical information for 50 to 60 years, and have turned it back [to the states] from the beginning. We have always done some value-added work when we turned it back to the states. It lets them see what other states were doing, and they see the data as a really valuable resource." By functioning as a knowledge manager serving states and localities, the federal road agency built a performance-improving partnership with states that has flourished more than 100 years.

As automobile use increased, so did accidents. In 1966 Congress responded by adopting a new federal goal: highway traffic safety. It required every state to establish a highway safety program in accordance with uniform federal standards. The National Highway Traffic Safety Administration (NHTSA) funds state employees in every state to review and code incident reports, such as police crash and coroner reports, collected for local purposes. State staff record data about traffic-related fatalities before, during, and after each accident, noting key characteristics of physical, social, and environmental conditions associated with the accident such as the state of the operator, type of equipment, and accident costs. They submit the information to a national highway fatality database. A dozen states voluntarily supplement the NHTSA's fatality database with their own data about nonfatal crashes.

The NHTSA not only supports and collects measurement, it also functions as the scientist in Brandeis's laboratories of democracy. It studies the data it collects to look for patterns of problems, such as accident levels correlated with driver age and alcohol use. It determines the most prevalent problems needing attention. It also looks for anomalies and tries to understand their causes. For example, the NHTSA helped one state understand why it had a higher right-angle crash rate than other states: as it turned out, more driveways in the state feed directly onto major thoroughfares than in other states. When states change their laws, the NHTSA compares changes in fatality rates in changed and unchanged states. Studying the effects of changes in state laws enabled the NHTSA to discover that when states allow police to pull people over to check safety belt use (instead of checking only when police stop drivers for other reasons), it increases belt use and lowers fatality rates.

The NHTSA also uses measurement to help states find and replicate effective practices. North Carolina identified an interesting program in Canada that combined a media campaign with a "stop-and-check" blitz to increase seat belt use. North Carolina replicated the program, with good results. South Carolina wanted to try it but lacked primary enforcement ("stop-and-check") authority, so the state sought help from the NHTSA to adapt the North Carolina program. The NHTSA developed audience-focused outreach materials to increase public awareness of the importance of wearing safety belts, including sample materials packaged for key target audiences such as schools (for example, morning announcements), law enforcement officials, parents, and others. The adaptation worked; after adoption, belt usage increased 9 percent in South Carolina and other southeastern states. The NHTSA then rolled the approach out nationally, simultaneously promoting state adoption of primary enforcement laws. It used grants to recruit volunteer states to participate in a controlled, measured experiment. Ten states tested the NHTSA Click It or Ticket campaign, four states served as a control group that did nothing, and four states tested programs of their own design. The NHTSA funded observers to measure belt use before and after the campaign, using a common measurement methodology. Belt use increased 8.2 percent in full implementation states, 2.7 percent in states using programs of their own design, and 0.5 percent in the control group of states.

The NHTSA's data-rich, audience-focused work with states and localities dramatically improves outcomes. Automobile fatality rates have fallen in all but two of the past twenty-five years, and safety belt use climbed from 58 percent in 1994 to 81 percent in 2006.

    From: Shelley H. Metzenbaum, "From Oversight to Insight: Federal Agencies as Learning Leaders in the Information Age," in Timothy J. Conlan and Paul L. Posner, editors, <u>Intergovernmental Management for the 21st Century</u>, Brookings, 2008, pp. 209-242. Footnotes are available in original text, available upon request.

    After decades of decline, <u>traffic fatality rates increased in 2012 and again in 2016</u>. Work is underway to <u>understand the causes of that increase and how to address it</u>.
    NHTSA occasionally conducts measured trials, such as a <u>multi-year trial</u> to test a communication/enforcement <u>campaign</u> to reduce distracted driving, tested first in 2 small communities and since tried in 2 larger ones. This trial complemented many <u>other studies diagnosing the causes and importance of the problem</u>, as well as possible prevention methods.

Case 2: U.S. Coast Guard

In 1994, the U.S. Department of Transportation (DOT) piloted a project at the Coast Guard to focus its management system on performance outcomes, such as safety and health, rather than activity goals, such as the number of inspections. Within one year, the Coast Guard halved the fatality rate of towboat workers. By redefining its goal from measuring activities (e.g. vessel inspections) to measuring outcomes (worker fatality rates), the Coast Guard was able to enter into a partnership with the industry it regulates to fix the problem. When it pursued activity goals, agency progress imposed direct costs on the regulated community without a clear purpose. When it shifted to an outcome-focused goal, agency successes aligned more closely with those of the industry, its workers, and the public….

The Coast Guard pilot performance management project on marine safety, security, and environmental protection opted for five-year goals. The longer time frame afforded the organization the ability to choose challenging stretch targets. It adopted a goal of reducing accidental deaths and injuries from maritime casualties by twenty percent. The longer time frame also allowed greater flexibility in the selection of strategies to meet the goal….

By breaking the fatality rates for all vessels down into fatality rates for different types of vessels, the Coast Guard was able to determine which maritime sectors had the highest risks. This information allowed the Coast Guard to design an intervention strategy attentive to the culture of the industry group whose actions needed to change. It also allowed it to direct resources to the areas with the highest potential "safety return on investment." And, in pursuit of the highest safety return on investment, DOT was subsequently able to shift some attention from commercial vessels to passenger vessels because so much progress had been made toward improving commercial vessel safety….

From Kennedy School Executive Session on Public Sector Performance Management, "Get Results through Performance Management: An Open Memorandum to Government Executives" Harvard Kennedy School of Government, 2001. As the Coast Guard/American Waterways Operators 2012 and 2016 report and industry trade press article attest, this outcomes-focused, data-rich safety partnership continues to drive down waterway fatalities.

Case 3: U.S. Healthy People (page 1 of 2)

… The federal government issued the first Healthy People report in 1979, providing a health vision for the country by setting five specific national outcome targets, one each for five distinct age groups, to be achieved within ten years. This goal-setting report was followed one year later by a report setting specific targets for fifteen priority program areas, such as immunization and accident prevention, to reach the five national goals. The federal government has updated the health goals and objectives for the American people each successive decade, setting targets for the decade to follow.

Healthy People goals and objectives are set based on a review of the evidence about deaths and illness, their causes, and the effectiveness of prevention efforts. The reports select high-level goals, such as the current Healthy People goals of increasing quality and years of healthy life and reducing health disparities, and specific objectives for specific focus areas. Data on risks associated with illness and death guide the selection of objectives and focus areas. Health care system problems, behavioral factors, environmental hazards, and human biological factors are also considered in the selection of objectives. The reports classify preventable risks and tally them to find the best opportunities for risk reduction.

Healthy People goals do not have the force of law, only the power of persuasion. Nonetheless, they have proved contagious, guiding priorities, informing decisions and influencing government spending. Other federal agencies, states, localities, and the private sector have embraced these goals. The New York City Department of Health and Hygiene uses Healthy People goals to guide and gauge its own performance. Forty-four states, the District of Columbia, and Guam, have replicated the Healthy People model and adopted their own health promotion and disease prevention objectives to guide local health initiatives.

Congress incorporated Healthy People objectives into several laws and programs, including the Indian Health Care Improvement Act, the Maternal and Child Health Block Grant, and the Preventive Health and Health Services Block Grant. Indeed, the positive congressional response to Healthy People goals suggests that federal agencies can use goal setting as a way to start (or continue) a conversation with Congress about appropriate priorities.

The federal government did not assume other levels of government would embrace Healthy People targets; it worked hard to build support. It offered technical assistance to encourage states and localities to undertake their own tailored Healthy People efforts and created the Healthy People Consortium, made up of 350 national membership organizations in addition to state and territorial health agencies.

The Healthy People initiative also stimulated nongovernmental financial support to advance its goals. The Robert Wood Johnson Foundation, for example, awarded a grant in 1997 to direct the attention of American businesses to Healthy People goals. A Healthy People Business Advisory Council was created to encourage attention to Healthy People goals in the workplace.

The intergovernmental trajectory of one Healthy People objective suggests how federal goal setting can influence others. The 1979 Healthy People report identified cigarette smoking as the single most preventable cause of death and adopted a smoking cessation target. Since that time and without central coordination, other federal agencies, states, and local governments have adopted a wide variety of actions to prevent smoking. These include taxes, lawsuits, warning labels, and bans on smoking in public places. Uncoordinated goal-focused intergovernmental action, led at different times by different levels of government, has driven U.S. smoking levels down dramatically since the mid-1960s, when the surgeon general first issued a report warning of the dangers of smoking.

Case 3: U.S. Healthy People (page 2 of 2)

Well-selected federal goals, these vignettes suggest, have a powerful persuasive effect when they deal with issues that concern people and are backed by evidence showing the relative importance of a problem and the existence of effective prevention practices. They inspire effort and investment by others. Experience with the Healthy People initiative suggests that federal agencies can use the federal bully pulpit to set goals that persuade, even without incentives.

Is Healthy People an exception or does it offer a model for other policy areas? Arguably, four replicable attributes of the initiative caused states and localities to align voluntarily with federally nominated objectives. First, its goals focused on issues that concern the public. Second, goal selection was informed by accumulation, analysis, and publication of data about the relative seriousness of problems needing attention. Third, Healthy People reports tally not only problems but also their preventable causes, suggesting a path for problem reduction. Fourth, the federal government used the goals to reach out broadly to recruit experts and implementers whose independent actions and decisions could improve health outcomes.

It has been suggested that Healthy People is unique because the health field is rich with data and is an area with high goal congruence across government levels. However, Healthy People lacked data for about one-third of the objectives it set when it started. A decade later, it had reduced that gap to 20 percent because agencies started to generate the data they needed. In addition, data shortages in federal agencies are not always as desperate as claimed. Many agencies collect reams of data they never analyze, forgoing opportunities to understand the relative import of problems, their causes, and prevention possibilities.

With regard to concern about goal congruence, intergovernmental goal dissonance undoubtedly exists. Differing values and the cost of goal pursuit make debates about government's goal selection and the appropriate portfolio of goals common. Those conflicts intensify across levels of government, especially when goals set by one level impose costs on another. Goal dissonance is less an issue with hortatory federal goals. Contention rises when Congress makes state or local goal adoption mandatory and threatens penalties. It can also rise when goal adoption is required as a new condition added to existing intergovernmental grants routinely awarded every year.

     From: Shelley H. Metzenbaum, "From Oversight to Insight: Federal Agencies as Learning Leaders in the Information Age," in Timothy J. Conlan and Paul L. Posner, editors, Intergovernmental Management for the 21st Century, Brookings, 2008, pp. 209-242. Footnotes are available in original text, available upon request. HHS is currently working on setting 2030 goals. Based on data about causes of health problems, it also continues to set specific problem-solving goals, such as the goal to reduce harmful hospital-acquired conditions, embraced in the Partnership for Patients campaign.

Case 4: U.S. EPA Cleaning Up the Charles River in Massachusetts

In 1995 on the eve of the world-famous Head of the Charles regatta, EPA New England's Regional Administrator John DeVillars publicly announced a goal: the lower Charles River would be swimmable in ten years. At the time, the river was so badly polluted that boaters who fell in were advised to get a tetanus shot.

DeVillars and his staff realized that EPA would need better data to figure out how to meet this ambitious target. Fortunately, the non-profit Charles River Watershed Association (CRWA) had recently begun a volunteer monitoring effort. CRWA had trained volunteers to collect fecal coliform and dissolved oxygen samples, and they collected them every month at 37 points along the 80-mile stretch of the river. CRWA posted these data almost immediately in an online spreadsheet. EPA attorney Ken Moraff recognized that these data were more "actionable" than anything else EPA or the state had. Although volunteer-gathered, they were valid enough to trigger focused follow-up questions.

Each month, the EPA team analyzed the CRWA data to look for anomalies and patterns. When found, they tried to understand the likely cause. In one case, when EPA saw a downstream reading worse than an upstream one that could not be explained by a permitted discharger between the two monitoring points, EPA called the Boston Water and Sewer Commission (BWSC) to see if it could explain the anomaly. BWSC could not, so the two teams joined together to "walk the pipes." Doing so, they discovered an illicit hookup to the storm drain sending untreated waste that should have been directed to the sanitary sewers for treatment flowing instead through the storm sewers and directly into the Charles.

The EPA team wondered if more illicit hook-ups existed. Brainstorming, someone suggested lifting manhole-covers over storm sewers on dry days to look for running water. EPA asked Massachusetts cities and towns to do this and to eliminate illicit hook-ups they found. This worked remarkably well. Within five years, the Charles was safe for boating 92% of the time (up from 39%) and safe for swimming 59% of the time (up from 19%).

EPA did not meet its ten-year target. What is interesting is that this has never become a political issue. Perhaps that is because EPA shares its progress, problems, and strategies with the public every year, usually around Earth Day. One sign of the political viability and sustainability of this transparent goal-setting, data-rich approach is that multiple regional administrators working for several U.S. Presidents from different political parties have continued the goal of a swimmable Charles. In September 2014, nineteen years after the goal was first set, EPA released its annual grade for the river, an A-. The river was safe for boating 96% of the time, and swimmable 70% of the time, the best result to date.

It is hardly intuitive to think of water quality data as an effective way to measure compliance and enforcement activities, but the Charles River example shows just how powerful it can be – stimulating innovative thinking and revealing ways to improve. Beyond that, the case shows that useful measurement is not always costly to gather and can come from multiple sources, not just from government.

From "Environmental Compliance and Enforcement Measurement: Why, What, and How? Forthcoming in Markell and Paddock, Ed. (Edward Elgar: forthcoming.) This excerpt was adapted and updated from "Measurement that Matters: Cleaning Up the Charles River," in Donald F. Kettl, ed., Environmental Governance: A Report on the Next Generation of Environmental Policy (Brookings: 20020, pp. 58-117. Footnotes are available in original text, available upon request. This experience has informed the design of EPA's nationwide Urban Waters program.

Case 5: Engaging Employees in Controlled Trials at a Spanish Supermarket

Some well-run private sector companies encourage what one researcher describes as a "scientific mind" in all employees, encouraging every worker to generate hypotheses, conduct experiments, collect data, review results, and implement change. When more employees possess a "scientific mind" and combine that know-how with a robust performance measurement system, it encourages ongoing innovation and improvement, as this private sector example illustrates. "An employee suggested it would be better if there were a package of stew vegetables near the meat section so that the … customers could get all the ingredients for stew quickly. When Mercadona gets a suggestion like that from an employee, it first tests the idea at one store to quantify its effects on various performance measures such as number of transactions, kilos of products sold, or reductions in kilos of waste generated. If there is an improvement in performance, they test it in an area… If the performance improvement is still there and if higher management supports the innovation, then Mercadona rolls it out across the entire chain."

From Zeynep Ton, <u>The Good Jobs Strategy</u> (New Harvest: 2014), p. 57

Cases 6 and 7: Information that Informs Front-Line Decisions – UPS and Case Commons/Casebook for Child Welfare

Making information available and understandable so people in the field can readily access and use it when and where they need it greatly contributes to the success of data systems and complementary evaluations and root cause analyses. Consider two example: the private sector United Parcel Service (UPS) and Case Commons/Casebook, the child welfare information system improvement effort of the Annie E. Casey Foundation, initially working with the state of Indiana.

Case 6 - UPS. UPS regularly uses data and tests new practices to increase productivity, profits, driver pay, and safety levels. It analyzes data from drivers, their handheld devices, and their trucks and then returns that information to drivers in a way that helps them find faster routes, anticipate dangerous dogs, and avoid lost packages. At the same time, it collects new data from drivers to build company and colleagues' knowledge. In addition, UPS constantly asks questions, observes, brainstorms, and then works to test, assess, and adjust different designs for better equipment, such as smart key fobs and streamlined doors, and smarter practices, such as better driving behaviors. Complementing this technology is a negotiated union agreement preventing UPS from using the information it collects solely from technology for disciplinary purposes except in cases of dishonesty, a commitment to keep workers informed about the data being collected, and driver pay pay levels that have risen along with corporate financial gains from analyses. *Sources:* <u>NPR</u>, <u>Mental_Floss</u>.

Case 7 - Case Commons/Casebook. The Annie E. Casey Foundation is working to improve data systems and data used to help children in foster care. Reaching out to frontline social workers and state program managers to understand their information needs and work problems, it saw a problem in need of fixing. Caseworkers often write out their case notes in notebooks; if they move on, the notebooks go with them and their successors are left without the child's case history. Even when caseworkers stay, though, the state cannot look across caseworkers' notes to detect serious or common problems or find promising practices worth testing and promoting for broader adoption. Working closely with frontline workers as well as state program managers in Indiana, the Foundation launched <u>Case Commons</u> to design, test and refine an electronic notebook and data system that <u>serves caseworkers and also generates information useful to supervisors</u>, program managers and, eventually, researchers and policy makers. Early returns are promising, indicating that, at a minimum, the systems are improving interaction levels between caseworkers and families.

**Case 8: Hospitals, Nursing Homes, NHTSA, and Military
Experience Suggest What It Takes to Make a Data Systems Last**

As William Gormley and David Weimer found in their study of organizational report cards, even those as illustrious as Florence Nightingale, for hospitals, and Horace Greeley, for schools, could not create sustainable data systems because constituencies fearful of being measured were able to organize to dismantle the measurement system, without encountering a sufficiently strong oppositional constituency. NHTSA similarly encountered opposition when it tied state data on motorcycle accidents to high stakes incentives, restricting its ability to influence state helmet use laws. The military, in contrast, was able to build a comparative educational performance measurement system that survived over time, because it so strongly needed comparative student educational readiness data to meet its hiring needs, producing data that other well-organized political voices such as colleges and universities also deemed useful.

Organizations sometimes so fear the consequences of measurements that they organize to dismantle or prevent the establishment of measurement systems. Data system destruction tends to occur most frequently when a poor relative standing threatens those being compared and the political power of those threatened by comparison exceeds that of those using comparative information. This has frequently been a problem plaguing recurring efforts to introduce measurement into hospitals, education, and the environment.

For comparative organizational measurement systems to survive, the political strength of the audience using the measurements needs to exceed that of those at risk by being compared. Agencies will be well served if they think about how to strengthen the political power of the consumers of measurement as a strategic issue so that measurement can survive and effectively motivate, illuminate, communicate, and inform choices. Also, measurements are infuriating rather than performance-improving when inaccurate information is used to guide consumer choices, regulatory action, or program or provider funding decisions.

From Shelley Metzenbaum, "Performance Accountability Expectations: The Five Building Blocks and Six Essential Practices," IBM Center for the Business of Government, 2006, citing research by Gormley and Weimer, Organizational Report Cards (Harvard: 1999) on hospitals, nursing homes, and the military. On motorcycle helmet laws, see "Strategies for Using State Information: Measuring and Improving Performance," IBM Endowment for the Business of Government, December 2003.

Cases 9 and 10: Lots of Data Not Used or Underutilized– Head Start and Federal Employee Statistics

Case 9 – Head Start. [Until new regulations were promulgated in the fall of 2016, Head Start grantees were monitored on their compliance with 1,400 requirements, the Head Start Program Performance Standards.] The Designation Renewal System (DRS), mandated by the Improving Head Start for School Readiness Act of 2007 (Head Start Act), creates a form of accountability by requiring grantees that hit one of seven "triggers" to compete to renew their grants.

[Unfortunately, little analysis of the data pertaining to these 1400 standards has been done, except to determine compliance and trigger a requirement that a grantee compete to renew. One likely reason that so little analysis has been done is that that the standards are primarily structured as yes/no questions, rather than actual data, and must be complemented by extensive paper documentation of meetings, plans, and other compliance requirements.] … Only the last requirement on the trigger list, CLASS scores, emphasizes program quality beyond mere compliance, and focuses on a very narrow domain of Head Start performance. Further, the DRS does not differentiate between deficiencies that indicate serious shortcomings in programs' health and safety practices, finances, or quality and deficiencies that reflect minor compliance problems. As a result, designation renewal has intensified the culture of compliance in Head Start, rather than encourage analysis of the data to find areas of strength and weakness.

Designation renewal is grounded in sound principles — identify grantees that consistently fail to achieve desired results; take action to correct underperformance; and, where necessary, create opportunities for higher performers to replace the underperforming grantees. Data and reports from the field also suggest that designation renewal has led to the replacement of historically underperforming grantees — roughly 5 percent of all Head Start grantees have lost their grants in the past three years — and has stimulated improvement in underperformers. But the system's reliance on imperfect and inadequate measurement has also resulted in identifying some high-performing grantees for competition, while failing to identify others that are low-performing.

Further, the DRS … identifies only those programs that fall short of standards, not exemplary performers…. To really support continuous improvement, Head Start needs a fairer and more results-based and robust way of measuring grantee quality. This is a necessary precondition for both identifying and learning from programs that are producing exemplary results, and for achieving the intended goals of the DRS. …

Adapted from Mead and Libetti Mitchell, Moneyball for HeadStart: Using Data, Evidence, and Evaluation to Improve Outcomes for Families and Children (Results for America, Bellwether Education Partners, National Head Start Association, The Volcker Alliance: 2016), supplemented by commenter's notes based on complementary information.

Case 10 – Federal Employee Statistics. Reams of survey and transactional data are collected about federal employees, including information about job openings, applicants, screening, hiring, retention, pay, promotion, employee views, and retirement. With the exception of the federal employees' views, however, little of these data are routinely analyzed to find ways to improve, nor are they communicated in ways that will engage others in solving problems, pursuing opportunities, or motivating action. One noteworthy exception is the Federal Employee Viewpoint Survey (FEVS). Its administration was transformed over the last eight years from a statistically valid biennial snapshot of the viewpoints for each major agency and department that answered a question that was not very "actionable" -- whether or not progress was being made at the agency level on each question every 2 years – to a far more useful resources done annually at far great detail. The survey is now administered to everyone in all but the smallest organizational units of every agency and department in the federal government or to a statistically valid sample for each unit. The shift from a bi-annual to an annual survey and to statistical validity for organizational units as they are managed has rendered the FEVS a powerful management and motivational tool. It both enables and presses agencies to identify areas needing attention, and points to places where progress is being who may have practices others want to adopt. External attention to the FEVS from the Partnership for Public Service, which releases its own annual report on the best places to work, as well as the U.S. Office of Management and Budget (OMB) and the Performance Improvement Council may have encouraged increased attention to and analysis of the FEVS, as well as increased support to help agencies access and use the FEVS data, by the U.S. Office of Personnel Management (OPM). In contrast, a vast array of other rich HR data that could spotlight HR problem and areas with progress – such as cross-agency comparisons of employee application rates, hiring times, and retention rates for similar positions or HR staffing ratios – has yet to be done routinely. Perhaps this is because no one outside government, in Congress, or at OMB have yet pressed for these analyses to be done, at least not in a way that is being shared with the public, despite their high potential value to agencies. *Source: commenter's experience as former Associate Director for Performance and Personnel Management at the U.S. Office of Management and Budget.*

2. Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?

I can offer little expertise in this area, but recent efforts from Washington to develop a privacy modeling tool might be helpful: https://watech-beta.herokuapp.com/

Data Infrastructure and Access

3. Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?

To facilitate use and access to administrative and survey data, return data to data suppliers with value added through analyses, and help users do their own analyses by offering raw data, report generators, and analytic models and examples illustrating how to do and apply analyses.

Also, support and, where necessary, create continuous learning and improvement communities (CLICs) that bring frontline workers, their supervisors, and others in the delivery system together with each other, with high-quality researchers, and with policy makers to learn from experience and discover new paths for improvement.

4. What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation, and analysis purposes?

In addition to supplying report generators and analytic models to states and others, as well as examples illustrating how to do and apply analyses, try building researcher/practitioner partnerships in a variety of ways. Increase academic stints in government agencies' data shops using the Intergovernmental Personnel Act (IPAs), and create inter-agency analytic internships for students (who can career into a federal government position in any agency after working 320 hours as an intern, if they have a B+ average, or after 640 hours, if they do not.) Also, consider testing research partnerships where government offices can turn to individual researchers for literature reviews.

Also, build problem-focused websites similar to HealthyPeople.gov and http://www.nhtsa.gov/, both of which provide ready access to data, trends analyses, evaluations, and promising practices worth further testing. Both make data available nationwide and at the sub-national level, facilitating the search for positive outliers whose practices might be worth testing to produce comparable gains, as well as negative outliers to trigger the search for their root causes.

In addition, increase Federal employees familiarity with APIs and their skills and knowledge about how and when to use them.

5. What challenges currently exist in linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

As noted in some of the case studies and the writings cited, numerous challenges currently impede efforts to link state and local data to federal data. Aside from the push/pull between centralization and states' rights that goes back to our founding fathers, states, local governments, and other grantees may resist linking their data to federal data for a variety of reasons. These include cost, disagreement about data standards and structure, recent investment in data systems

that the federal government wants to render outdated by establishing new reporting standards, disagreement about metrics, reporting burdens not counterbalanced by reporting value, fear of looking bad compared to others, fear of being penalized for poor performance or poor relative position, and, ironically, occasional fear of looking too good compared to other states, which might cause a state legislature to cut an agency budget or limit its authority because of concerns about interstate economic competitiveness.

Ill-structured incentive systems, both the prospect of earning a bonus and the threat of penalties, can be especially problematic. As briefly discussed in Case 8, when the stakes get raised too high, those being measured often organize to dismantle the data system. In other cases, they game it.

In truth, the push/pull between standardization and local discretion is not unique to government, a topic Zeynep Ton explores in her book cited in Case 5.

A few cases have been offered here, most notably the National Highway Traffic Safety Administration and the Healthy People data sets, where local, state, and federal data have been linked, in part because of robust data collection framework was established (see, for example, the Haddon Matrix), and in part because the federal agencies collect data that are useful at the local level and also return data analyses back to data suppliers with value added through analyses. I am told that the Substance Abuse and Mental Health Services Administration (SAMSHA) may also be a successful instance of data and evidence sharing.

6. Should a single or multiple clearinghouse(s) for administrative and survey data be established to improve evidence-based policymaking? What benefits or limitations are likely to be encountered in either approach?

Data.gov seems like a good start as a clearinghouse for the nearly 200,000 federal government data sets.

Despite a lot of hard work, except for PubMed.gov which although highly technical is nonetheless readily searchable and somewhat understandable even to the lay person, the evidence clearinghouses I have seen in other policy areas, both public and private, seem impenetrable for most audiences. Their primary audience seems to be researchers, not practitioners, but where can the interested teacher, principal, superintendent, social worker, inspector, benefits processor, etc. go to find relevant research and statistics? When I have asked practitioners that question, even those with Ph.D.'s in their field, most say they don't have a good place to go. One Ph.D. K-12 educator told me that he had tried the clearinghouses and found the New York Times more helpful in informing his curriculum purchases. Not surprisingly, the medical clearinghouses seem to be the most useful.

Let me suggest testing out multiple clearinghouses, not a single clearinghouse, organized around multiple themes:
  * purpose (e.g., healthy people, thriving children, thriving veterans, employment and training, clean water);
  * processes (e.g., benefits processing, permits, regulatory compliance, risk reduction, r&d);
  * change mechanisms applicable across policy areas (e.g., awareness, understanding, acceptance, behavior change, contagion);
  * people or sectors (e.g., children, aviation).

HealthyPeople.gov may be a good model for a purpose-focused clearinghouse. Before embracing it in its entirety, however, the Commission should reach out to the people who work on it and who use it to determine its strengths, weaknesses, and planned next steps.

Also, more closely integrate Data.gov, Performance.gov, and the social indicators in the President's budget or elsewhere (e.g., sdg.data.gov) with each other and with the evidence clearinghouses.

7. What data should be included in a potential U.S. government data clearinghouse(s)? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

Let me suggest that this question be asked and answered through a systematic, annual process by revamping the annual Information Collection Budget (ICB) required by the Paperwork Reduction Act (PRA.) Historically, the ICB has focused on reducing the reporting burden placed on the public by the federal government. Information has been widely recognized as a major strategic asset over the last decade, yet the ICB continues to focus on information as a burden rather than a valuable asset. The ICB should be revised to, as its name implies, be a budget that reviews options and decides federal information management priorities within and across agencies. This change would fully align with the full set of legislated purposes of the PRA, including, as laid out in the law:

- ensure the greatest possible public benefit from and maximizing the utility of information created, collected, maintained, used, shared and disseminated by or for the Federal Government;
- improve the quality and use of Federal information to strengthen decisionmaking, accountability, and openness in Government and society; …
- strengthen the partnership between the Federal Government and State, local, and tribal governments by minimizing the burden and maximizing the utility of information created, collected, maintained, used, disseminated, and retained by or for the Federal Government;
- provide for the dissemination of public information on a timely basis, on equitable terms, and in a manner that promotes the utility of the information to the public and makes effective use of information technology;…
- ensure that information technology is acquired, used, and managed to improve performance of agency missions, including the reduction of information collection burdens on the public;"….

This revamp should also look at and align efforts to produce the Annual Inventory of Major Information Systems required by another law (FISMA) and the Enterprise Roadmaps agencies may be asked to do to prioritize legacy system upgrades and make sure they are user-centered and purpose-focused.

8. What factors or strategies should the Commission consider for how a clearinghouse(s) could be self-funded? What successful examples exist for self-financing related to similar purposes?

If the ICB were actually treated as a budget, as suggested in my response to question 7, the options it raises and priorities it sets could be incorporated into the federal budget process, ideally with multi-year funding authority provided. In addition, as Cases 1 (NHTSA) and 9 (Head Start) suggest, grants can be a good mechanism for funding data generation, collection, analysis, and sharing, but this only works well when data are returned to data suppliers/grantees in ways that

helps them make progress, such as by detecting problems and by identifying, through benchmarking (normalized comparisons) and other means, ways to do better.

9. What specific administrative or legal barriers currently exist for *accessing* survey and administrative data?

The need to keep both health information (HIPAA) and business information confidential is important, so it is neither surprising nor unwarranted to restrict their use. The problem is that agencies too often are overly restrictive, even to other agencies. Years ago, for example, the New Jersey environmental protection department tried to get health data from the state health department to inform the environmental agency's enforcement, permitting, and rule-setting priorities. The environmental agency was unable to access the information and the health agency would not make the kind of analysis the environmental bureau wanted done a priority, precluding more impactful, efficient allocation of government resources.

Agency policy can also be problematic. Selected academic researchers have long tried to negotiate with OPM to get access to federal human resource data with sufficient detail to do interesting, useful analyses. Last I talked to one of the leading researchers in this field, he had given up on the effort.

It is worth noting that the lack of timely data can limit its value, even when available. This had been the case with OPM's release of the FEVS data described in Case 10 (possibly since corrected.) The lag time between data collection and data release makes it hard for agencies to decide in which areas where they need to focus their HR actions to do better on the following year's survey. To address this problem, some agencies have commissioned additional surveys.

10. How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions?"

First, let me suggest that you expand this question to ask not just about researchers and institutions, but also about the exchange and analysis of data across government agencies. (See New Jersey vignette in response to question 9.)

Second, consider testing whether a user-centered approach would work as a way to qualify, researchers and institutions that want data. Have them answer several questions, including what they want to learn from the data, how they plan to share results of their findings, possible problems that could arise from their use of the data, and whether and how they plan to prevent the problems. Then, solicit selected members of the public and potential users and measured parties, not just the supplying agency, to react to the answers. I don't know if this will work, but it seems worth a try.

Third, consider flipping this question to ask and answer, "Who should not get specific federal data, what data should not be public, and why?"

11. How might integration of administrative and survey data in a clearinghouse affect the risk of unintentional or unauthorized access or release of personally-identifiable information, confidential business information, or other identifiable records? How can identifiable information be best protected to ensure the privacy and confidentiality of individual or business data in a clearinghouse?

I defer to the expertise of others on this subject.

12. If a clearinghouse were created, what types of restrictions should be placed on the uses of data in the clearinghouse by "qualified researchers and institutions?"

Clearly, an individual's private health conditions/income/employment history/benefits history/taxes paid should not be discernable by employers, neighbors, family, friends, enemies or others without the individual's permission. Researchers must de-identify data at a high enough level of aggregation to afford these protections before making their findings public. Similarly, to the extent possible, business secrets should not be made available to competitors, although trade-offs between knowledge needed for public health and the need to keep business information confidential may be needed.

You did not ask this question, but please think about the possibilities and possible consequences of allowing individuals to give permission to release their data, as so many of us now do when we agree to the terms and conditions of using a website? Should individuals similarly be allowed to give permission, up front, for researchers to use and possibly share information about them?

Related to that, should individuals be allowed to authorize, up front, the use of their personal data if that use will benefit that person? Organizations such as Code for America are doing path-breaking work improving government processes, such as its current work to improve the California Food Stamp application process. Should Code be allowed to ask Food Stamp applicants for permission to use their data to determine their eligibility for other programs, helping the individuals? Should they also ask applicants, at the time of application, if their data can be shared, or should a more paternalistic approach be used?

13. What technological solutions from government or the private sector are relevant for facilitating data sharing and management?

As Cases 6 and 7 illustrate, providing front-line workers, such as the foster care caseworker and the UPS driver, handheld devices that help them do their jobs and make decisions in real time greatly facilitates data sharing and management, especially when the central office analyzes the data and shares the insights with the front line worker, while supporting queries and decision-making of supervisors and higher level managers.

Other promising technical solutions include: visualization (geographic and time-tagged), APIs, iterative user-centered design principles, remote sensing, electronic filing and applications, electronic diaries, and even electronic attendance keeping (which, I am told, proved very helpful in homelessness research.) All of these technologies make information potentially more relevant, useful, and affordable.

Also, check out how Google shows use patterns at different locations by time of day and the day of the week, and imagine doing that at Social Security Offices or TSA clearance locations.

Solutions need not always be technical, however. Case 5 about the Spanish supermarket chain suggests not only the value of a strengthening the scientific mind of front-line workers, but also the importance of structuring incentives in ways that encourage innovation and teamwork. The NPR story referenced in Case 6, about the UPS, elaborates on the analytic and experimental mindset of the central office data team, another critical factor, and suggests the need for such a team. The Coast Guard has similarly embraced the right skill set and mind set not just for tow boat worker safety, but also to reduce oil spills. For example, because it noted the timing of all

marine-based oil spills, one of its regional offices noticed that most spills occurred at night. After shifting some inspections, all of which had previously occurred during regular business hours, to the times when most of the spills were happening, the number of spills fell.

14. What incentives may best facilitate interagency sharing of information to improve programmatic effectiveness and enhance data accuracy and comprehensiveness?

My response to this question addresses two aspects of the question: what facilitates data sharing and what facilitates interagency data sharing.

Making data, analyses, and evaluations useful, understandable, timely, and available at the likely point of use (which is much easier than in the past thanks to handhelds and screens everywhere) facilitates program improvement, especially, as Case 8 discusses, when those being measured do not fear the information will be used to punish them unfairly or when advocates for good data have more political power than those resisting. Making information not only readily available and understandable but also easy to supply (again, tapping new mobile technologies) enhances data accuracy.

Unfortunately, much federal data collection, for grants but also for some regulatory and other programs, gives more attention to compliance and payment errors than to finding ways to do better and motivating improvement, as Case 9 illustrates. The Head Start program has long required grantees to fill out yes/no checklists on 1400 performance standards and submit documentation of meetings, plans, and other compliance requirements. It has not, however, collected or analyzed data about child health and development outcomes, safety incidents, or costs. This makes it difficult for grantees to learn from experience, their own and others, how to improve. Happily, recently released revisions to the Head Start performance standards aim to fix this problem, but critical information collection decisions must still be made by the federal government, grantees, and the vendors who sell information systems to grantees to enhance the usefulness of collected data.

Other federal grant programs face similar challenges. Their reporting requirements fail to generate insights the front-line can use to make better decisions; their funding practices, often inadvertently, favor approving antiquated over more useful information systems; and government-wide policies for information collection complicate and impede needed adjustments to information collection practices.

Interagency data sharing is facilitated by a clearly articulated shared goal (or goals), an easily found and accesses repository that shares or points to relevant information, frequent data-rich reviews, and someone steering the improvement effort (a goal leader.) See, for example, HealthyPeople.gov, multi-sectoral and interagency efforts to reduce homelessness; intergovernmental efforts to control inappropriate drug use; and the effort to clean up the Charles River.

Data Use in Program Design, Management, Research, Evaluation, and Analysis

15. What barriers currently exist for *using* survey and administrative data to support program management and/or evaluation activities?

A number of barriers impede the use of survey and other data (e.g., transactional, observational, performance measurement, process measurement.) These include fear, the absence of responsibility for analyzing and using data and evaluations, weak skills and capacity to use data and other evidence and interpret them accurately, the lack of awareness of data and evidence, access to and the affordability of data, a compliance mindset, and the lack of external drivers or motivators to analyze and use data comparable to the competitive pressures of the market place.

For example, as discussed in Case 8 and the response to question 5, fear is one of the biggest barriers to using survey and administrative data. When people fear the data and evaluations will be used to penalize them, they often work to implode or manipulate the measurement system.

Another barrier, as suggested in the discussion in Case 10 about underutilized federal human resources data, is the absence of responsibility to analyze data, use data analyses and other research findings in decision-making, and identify knowledge gaps to fill with new data set and/or evaluations/experiments. The naming of Chief Operating Officers in every agency and charging them with running quarterly data-rich reviews on priority goals, as required by the Government Performance and Results Act Modernization Act of 2010 (GPRA 2010), helps to address that weakness but only for a small set of government goals. The annual strategic reviews required by the same law and recently started are also expected to help close that gap.

Much federal data collection, especially for grants but also for some regulatory and other programs, directs more attention to compliance and payment errors than to finding ways to do better and motivating improvement.

16. How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?

Past experience suggests a number of practices that encourage the use of data, statistics, and research results. These include:
- Setting and managing clear, well-framed, resonant, outcomes-focused goals complemented by frequent and routine data-rich reviews led by organizational leaders and a regular cadence of public reporting that explains focus areas, strategies to drive progress, why both were chosen, progress, problems, and planned next steps;
- User-centered design;
- User-centered reporting, slicing and dicing data into league tables or using other ways to normalize data for fair comparisons (think *Consumer Reports* tables) to reveal trends, patterns, and divergences;
- Supporting (and creating, where necessary) continuous learning and improvement communities (CLICs) that help grantees, field offices, and others learn from their own and others' experience and encourage collaboration on problem assessment and measured trials to find better ways to do business;
- Making information available, discoverable, and usable while protecting security and respecting individual privacy while adhering to Open Data principles -- public, accessible, described, reusable, complete, timely, and managed post-released;
- Visualization and presentation that provides context and makes it relevant and available at time of decision-making;

- Well-structured incentive systems, applying (and further developing) evidence about effective and ineffective motivational mechanisms[1];
- Recognition that data used for fast feedback, program adjustment, and to trigger focused follow-up such as root cause analyses need not be of the same quality as that used for enforcement actions and program evaluations, as Case 4 on the Charles River illustrated;
- Packaging materials to make them more useful to target audiences, as NHTSA has done.

17. To what extent can or should program and policy evaluation be addressed in program designs?

Similar to the way the Spanish supermarket chain in Case 5 and UPS in Case 6 integrate evaluations into their operations, federal agencies can and should integrate measured trials seamlessly into program operations for a wide variety of purposes. These can be as varied as testing to find unbiased ways to administer police exams to sending out regulatory compliance notices to behavioral change campaigns, such as NHTSA's test of its campaign to reduce distracted driving, to testing different individual and organizational incentive structures.

One challenge that should not be overlooked is figuring out a way to develop and share knowledge that is not unique to the policy area, but applies to processes, mechanisms, and audiences across different policy areas. For example, Wogalter's and others' research on warnings, risk communication, and human information processing, as well as the extensive body of research on cognitive bias, have long been integrated into FDA's regulatory decision-making. This knowledge would likely be useful to many parts of government.

18. How can or should program evaluation be incorporated into program designs? What specific examples demonstrate where evaluation has been successfully incorporated in program designs?

The GPRA framework and timetable – including the quarterly reviews for priority and other goals, the annual strategic review and performance reporting and planning process, and the strategic planning process that takes place every four years – afford an excellent vehicle for integrating decisions about data and evaluation priorities into agency decision-making with a regular cadence. The Chief Evaluation Officer at the Department of Labor has regularly participated in these meetings, and has complemented them with office-specific research agendas, listing needs and priorities.

The Cross-Agency Priority Goal goal-setting and quarterly review process can also be useful, as could a revamped ICB, as described in the response to question 7.

19. To what extent should evaluations specifically with either experimental (sometimes referred to as "randomized control trials") or quasi-experimental designs be institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?

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[1] Pink, Daniel (2011) *Drive.* New York: Riverhead. This book provides a good overview for the non-researcher on research findings about motivation and incentives affecting individuals. See also, the chapter on Building Block 5, in Metzenbaum, Shelley H. (2006) "Performance Accountability Expectations: The Five Building Blocks and Six Essential Practices," Washington, DC: IBM Center for the Business of Government. (http://www.businessofgovernment.org/sites/default/files/Performance%20Accountability.pdf)

Medicine is, of course, one area where RCTs and quasi-experimental designs have been institutionalized. Part of the "secret sauce" here, I would argue, is that many on the front-line (doctors) keep up on the literature in their field, websites are readily available both for doctors and patients that share research findings, and many of the best medical journals report the information in a way that succinctly summarizes at the beginning of the article relevance and applicability. For example, "in line with the Knowledge Translation movement across the globe, the International Journal of Health Policy and Management has adopted an initiative by which all original articles are required to have Key Messages under two separate headings namely: Implications for Policy Makers and Implications for Public." Similarly, JAMA (Journal of the American Medical Association) requires "a statement of relevance indicating implications for clinical practice or health policy… may also indicate whether additional study is required before the information should be used in clinical settings."

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0265
Comment on FR Doc # 2016-22002

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General Comment

See attached file(s)

Attachments

Sense about Science Commission on Evidence-Based Policymaking comments Docket ID USBC-2016-0003-0001 2016 Dec 14

Attachment 1 Evidence transparency framework

Attachment 2 SaS-Transparency-of-Evidence-2016-Nov

Attachment 3 Missing-Evidence

Docket ID USBC-2016-0003-0001
Commission on Evidence-Based Policymaking Comments

Response to overarching question 1: "Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe."

Sense about Science is the UK independent charity that challenges the misrepresentation of science and scientific evidence in public life. We advocate for openness and honesty about research findings, and work to ensure the public interest in sound science and evidence is represented and recognised in public discussion and policymaking.

Our recent work has identified two significant problems relating to evidence building and use in policymaking which may be of interest to the Commission: a lack of transparency about the use of evidence in policy development, and that there is no comprehensive account of research commissioned by the UK government from external sources. We enclose three documents relating to these issues: a framework to assess the transparency of evidence used in policymaking; the report of the first ever assessment of whether the UK government is transparent about its use of evidence when developing policies; and the report of an inquiry into the delayed publication of research commissioned by the UK government.

Transparency of evidence use in policy development

In 2015, at the suggestion of the UK government's *What Works* National Adviser (Dr David Halpern), Sense about Science, the Institute for Government (IfG) and the Alliance for Useful Evidence accepted the challenge of developing a rapid assessment tool to rate how well government departments use evidence in making policy decisions. Initial testing revealed a prior challenge: that it is often not possible to see what evidence has been used or the basis for the assumptions being made in a policy proposal. Transparency is a first and necessary step in enabling the quality of the evidence used by a government department to be assessed. To address this we developed a framework to assess the transparency of evidence used in policymaking. This was published by IfG in October 2015.[1]

The framework represents an approach to testing evidence transparency that can be applied rapidly, does not require subject matter expertise and allows comparison between different policy

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[1] *Show your workings: Assessing how government uses evidence to make policy*, Jill Rutter and Jen Gold, Institute for Government (http://www.instituteforgovernment.org.uk/publications/show-your-workings)

areas and departments. The framework has been used[2] by the UK parliament's House of Commons Science and Technology Select Committee, which scrutinises government activity "to ensure that government policy and decision-making are based on good scientific and engineering advice and evidence"[3] and will be used in Peru.

Sense about Science, in partnership with IfG and the Alliance for Useful Evidence, then led testing and revision of the framework and used it to assess 13 domestic UK government departments' transparency of evidence use.[4] *Transparency of evidence* highlights good and bad practice and sets out what departments need to improve to perform well in the systematic ranking of departments we will perform next year.

Publication of government commissioned research

A spate of media stories in the UK about government commissioned research reports being suppressed or delayed, allegedly because the findings were politically awkward, led to concern among researchers and the public about:

- Failure to make publicly funded research available to the public.
- A lack of transparency about the basis of government decisions and the role that evidence played in reaching them.
- A reduced willingness of researchers to assist in policymaking.

In response Sense about Science initiated an inquiry led by former High Court Judge Sir Stephen Sedley into the delayed publication of government commissioned research and into possible remedies.[5] Sir Stephen found cases of research being suppressed. However, of far greater concern was the finding that no comprehensive account existed of how much research is commissioned by the UK government, nor of how much of it is published and when. Sir Stephen recommended that all government departments should record commissioned research in a standardised public register and report its publication so that this information is available, and continues to be available, to the rest of government, parliament, the research community and the public.

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[2] http://www.parliament.uk/business/committees/committees-a-z/commons-select/science-and-technology-committee/science-and-technology-evidence-check-forum/ (accessed 13th December 2016)

[3] http://www.parliament.uk/business/committees/committees-a-z/commons-select/science-and-technology-committee/role/ (accessed 13th December 2016)

[4] *Transparency of evidence: an assessment of government policy proposals May 2015 to May 2016*, Sense about Science, November 2016 (http://senseaboutscience.org/wp-content/uploads/2016/11/SaS-Transparency-of-Evidence-2016-Nov.pdf)

[5] *Missing evidence: An inquiry into the delayed publication of government-commissioned research*, the Right Honourable Sir Stephen Sedley, June 2016 (http://senseaboutscience.org/wp-content/uploads/2016/11/Missing-Evidence.pdf)

We hope that the Commission will find the attached reports useful in its work. We would be happy to expand on any of the above points.

Signed

Dr Síle Lane
Director of campaigns and policy, Sense about Science

14th December 2016

Attached:
1. Evidence transparency framework (July 2016); Sense about Science, Institute for Government, Alliance for Useful Evidence; Appendix 2 in *Transparency of evidence: An assessment of government policy proposals, May 2015 to May 2016*, Sense about Science, November 2016
2. *Transparency of evidence: An assessment of government policy proposals, May 2015 to May 2016*, Sense about Science, November 2016
3. *Missing evidence: An inquiry into the delayed publication of government-commissioned research*, the Right Honourable Sir Stephen Sedley, June 2016

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APPENDIX 2:
THE REVISED TRANSPARENCY FRAMEWORK, JULY 2016

Diagnosis This concerns why something is proposed, ie what the issue is that will be addressed. The document should explain: • what policymakers know about the issue, its causes, effects, and scale • how policymakers have assessed the strengths and weaknesses of that evidence.	LEVEL: So, can you see what evidence has been used and the role it has played?	0 Not sufficiently for level 1.	1 Evidence is mentioned, with some explanation of how it has been used.	2 As in level 1 and the supporting evidence is mostly linked to the relevant parts of the policy, properly cited and findable, and there is discussion of how it has been used.	3 Supporting evidence is consistently linked to the relevant parts of the policy, properly cited and findable, and there is assessment of uncertainties and contradictions in the evidence base.	Worked Example The government has assessed the extent of problem drinking in the UK: the economic and human cost
Proposal What is the government's chosen intervention? The document should explain: • why the government has chosen this intervention • what evidence, if any, that choice is based on • how policymakers have assessed the strengths and weaknesses of the evidence base, including what has been tried before and whether that worked or not • whether there are other options and why they have not been chosen • what the government plans to do about any part of the intervention that has not yet been decided upon. • what the costs and benefits are estimated to be and the assumptions behind those calculations.	LEVEL: So, can you see what evidence has been used and the role it has played?	0 Not sufficiently for level 1.	1 Evidence is mentioned, with some explanation of how it has been used.	2 As in level 1 and the supporting evidence is mostly linked to the relevant parts of the policy, properly cited and findable, and there is discussion of how it has been used.	3 Supporting evidence is consistently linked to the relevant parts of the policy, properly cited and findable, and there is assessment of uncertainties and contradictions in the evidence base.	Worked Example The government has chosen to implement minimum unit pricing for alcohol, instead of, for example, increasing alcohol taxes or starting a new educational campaign.

	LEVEL:	0	1	2	3	Worked Example
Implementation How will the chosen intervention be introduced and run? The document should explain: • why this method for delivering the intervention has been chosen • what evidence, if any, that decision is based on • whether there are other methods and if so the reasons for not choosing them • if the way to deliver the intervention is still being decided, what the method is for deciding • what the costs and benefits are estimated to be and the assumptions behind those calculations	So, can you see what evidence has been used and the role it has played?	Not sufficiently for level 1.	Evidence is mentioned, with some explanation of how it has been used.	As in level 1 and the supporting evidence is mostly linked to the relevant parts of the policy, properly cited and findable, and there is discussion of how it has been used.	Supporting evidence is consistently linked to the relevant parts of the policy, properly cited and findable, and there is assessment of uncertainties and contradictions in the evidence base.	The government has decided to implement minimum unit pricing through a voluntary agreement with major retailers rather than through legislation.

	LEVEL:	0	1	2	3	Worked Example
Testing and evaluation How will we know if the policy has worked? The document should explain: • any testing that has been or will be done • plans to measure the impact of the policy and the outcomes that will be measured • plans to evaluate the effects of the policy, including a timetable • plans for using further inputs	So, can you see what evidence has been used and the role it has played?	Not sufficiently for level 1.	Some indication of success measures but no plans for testing/ evaluation (or explanation of why inappropriate).	More comprehensive success measures (or process for developing them outlined). Also provides details about use of testing and plans for evaluation or explains why testing or evaluation would not be appropriate.	As in level 2 but explains the reasons for the use of testing and plans for evaluation. It is also clear what will happen to the results of testing and evaluation, including timing and plans for publication.	The government sets out how it plans to measure the results of the policy. The government sets out plans for piloting, initial evaluation of those results and then describes decision process around roll-out if the evaluation is satisfactory.

TRANSPARENCY OF EVIDENCE:

An assessment of government policy proposals May 2015 to May 2016

CONTENTS

INTRODUCTION

1.1   Why look at *transparency* about evidence?

The need for better use and sharing of the evidence in policymaking is widely acknowledged in policy circles. The 2013 review of the Civil Service Reform Plan made a commitment to "publish more of the evidence base that supports policymaking".[1] The Open Government Action Plan 2016-2018 set out changes to the publishing infrastructure that would support this. This sits alongside wider moves to promote the use of evidence in policymaking, including the What Works centres and the wider What Works national movement led by the Cabinet Office. But it is hard to tell whether those innovations are increasing the use of evidence in policy.

In 2015 the Institute for Government, Sense about Science and the Alliance for Useful Evidence took forward a suggestion by the What Works National Adviser to develop a rapid assessment tool to rate government departments on the use of evidence behind policy decisions. Our approach to doing this was published in the report *Show your Workings.*[2] It established that in order to evaluate policy evidence and the effectiveness of these initiatives, government's use of evidence needs to be more transparent: "transparency is a first and necessary step in enabling the quality of a department's evidence-based decision-making to be judged".

When the evidence that has been used to justify and shape a policy proposal is transparent:

- The evidence can be evaluated and improved upon.
- The public are better able to understand and engage with the reasoning for policy interventions.
- Further government initiatives and policy evaluation can build on it.

In *Show your Workings* we set out a draft transparency framework — an approach to testing evidence transparency that could be applied rapidly, did not require subject matter expertise, produced meaningful and consistent results, and allowed comparison between different policy areas and departments. Sense about Science committed to leading an assessment of policy proposals to see how different departments ranked on evidence transparency.

As we embarked on this we became inclined towards an experimental year, to test the framework and identify the range of practices we should be looking at, assisted by discussion with departmental analysts and the Cabinet Office What Works Team. Following the changes in the leadership and machinery of government in July 2016, we decided that the review of the year to May 2016 should aim to identify good and bad practice and that we will instead start rating departments in 2017. This has also enabled us to elaborate on the framework, particularly in the context of early stage announcements.

This report shares what we found. It highlights examples of how transparency about the use of evidence is being achieved and warns of the kinds of practices that will lead to low scores in next year's assessment.

Both the assessment exercise and the development of the framework have benefited from departments' responses and clarifications, regular discussion with departmental directors of analysis, and an initial testing exercise involving 21 volunteers from various policy backgrounds. A grant from the Nuffield Foundation supported a dedicated researcher for the assessment and the partnership between Sense about Science, the Institute for Government and the Alliance for Useful Evidence provided oversight and review. In the Next Steps section at the end we set out some further opportunities to discuss these findings and develop the methods for the full review in 2017 and we would welcome further feedback.

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[1] Civil Service Reform Plan: One Year On Report, July 2013 https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/211506/CSR_OYO_LOW_RES_PDF.pdf

[2] Show your workings. Assessing how the government uses evidence to make policy, Jill Rutter & Jen Gold, October 2015 http://www.instituteforgovernment.org.uk/publications/show-your-workings

1.2   The transparency framework

Put simply, the question we have asked of departments is: **could someone outside government see what you're proposing to do and why?** The framework looks at this across the following areas:

DIAGNOSIS (The issue that will be addressed)

The document(s) should explain: • what policymakers know about the issue, its causes, effects, and scale.

PROPOSAL (The government's chosen intervention)

The document(s) should explain: • why the government has chosen this intervention • what evidence, if any, that choice is based on • how policymakers have assessed the evidence base, including what has been tried before and whether that worked • whether there are other options and why they have not been chosen • what the government plans to do about any part of the intervention that has not yet been decided upon • what the costs and benefits are estimated to be and the assumptions behind those calculations.

IMPLEMENTATION (How the intervention will be introduced and run)

The document(s) should explain: • why this method for delivering the intervention has been chosen • what evidence, if any, that decision is based on • whether there are other methods and if so the reasons for not choosing them • if the way to deliver the intervention is still being decided, what the method is for deciding • what the costs and benefits are estimated to be and the assumptions behind those calculations.

TESTING AND EVALUATION (How we will know if the policy has worked)

The document(s) should explain: • any testing that has been or will be done • plans to measure the impact of the policy, and the outcomes that will be measured • plans to evaluate the effects of the policy, including a timetable • plans for using further inputs.

Following a validation exercise with policy volunteers in May 2016, we amended the initial framework, which had a separate section on value for money, to include this under the Proposal and Implementation headings, and expanded the definition of Testing and Evaluation to include whether consultation-stage proposals were transparent about departments' plans to use the material gathered.[3]

Although we have not created departmental scores this year, the framework's scoring ladder was used to look at a sample of policies from each department. The two underlying questions under each heading were:

Can you tell what evidence has been used?

Can you tell how the government has assessed or used this evidence?

Broadly the score levels were as follows (with some adjustment to suit document types):

0   Not sufficiently for level 1.

1   Evidence is mentioned with some indication of what it is and how it has been used.

2   As in level 1 and the supporting evidence is mostly linked to the relevant parts of the policy, properly cited and findable, and there is discussion of how it has been used.

3   Supporting evidence is consistently linked to the relevant parts of the policy, properly cited and findable, and there is assessment of uncertainties and contradictions in the evidence base.

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[3] The original version of the framework, as published in *Show your Workings*, is replicated in Appendix 3.
The amended version used to generate the findings described here appears in Appendix 2.

1.3 The sample

We defined a policy as a specific intervention to change the status quo — what the public would intuitively think of as a policy and the usual way that policies are presented in announcements. Several policies are sometimes grouped under one initiative such as a 'strategy'. These are treated as separate policy proposals. Where a proposal has components that share similar evidence propositions, we treated it as a single policy.

The list of policies was assembled by gathering all policy-related documents (consultations, white papers, impact assessments, bills and announcements) from the period and then cross referencing them.

We chose to look at 13 domestic policy departments. We excluded the Foreign Office, the Ministry of Defence and the Department for International Development (DfID) from the assessment because there were no policies that fitted our definition. We note that DfID has been using our draft framework since its publication in October 2015 to reflect on the information contained in its aid reviews.

For this first stage we looked at policies from Whitehall departments. We did not gather policies from the Welsh, Scottish or Northern Irish governments. We are keen to expand the use of the framework and the evidence transparency agenda in the future. We removed policies implemented by executive agencies such as the Environment Agency. This was due to both time constraints and the fact that these bodies are mostly implementing policies set by central departments.

In the year from the 2015 general election to May 2016, we found 593 discrete policy proposals by 13 domestic policy departments:

Department	Number of policies
Cabinet Office	17
Department for Business, Innovation and Skills	64
Department for Communities and Local Government	49
Department for Culture, Media and Sport	39
Department for Education	20
Department for Environment, Food and Rural Affairs	24
Department for Transport	22
Department for Work and Pensions	18
Department of Energy and Climate Change	30
Department of Health	15
HM Treasury	186
Home Office	87
Ministry of Justice	22
Total	**593**

We assembled the documents available at the point when the government first set out a policy publicly. This is important — this is when the public, parliament and the media first have the chance to assess a new proposal — and when it is important that the government exposes the evidence behind its initial thinking in order to promote informed engagement.

We made some exceptions. Where the first description of a policy was a press release or budget announcement, this was disregarded if another pre-implementation stage document was available. Where an initial announcement indicated a fuller proposal to be published very shortly after, eg the following month, this later document was assessed.

Because of the nature of the assessment — looking at how the public can grasp the basis for a policy when it is first set out — most of the policies we looked at were early stage. Consultations made up around half of the total policy proposals identified and just over half of those reviewed. We noticed that a policy being further down the line of development did not automatically mean it scored higher. However, there were some policies where we judged that it would be an over-application to fully apply the framework and these are explained in the further detail about methods in Appendix 1.

Attempting to assemble a comprehensive list of policies confirmed that gov.uk is extremely limited as a platform for public engagement with policymaking. The "policies" section is a collection of press releases, policy papers, speeches, guidance and other documents under very broad headlines such as "Counter-terrorism", "Tourism" and "Smoking".[4] The image below shows the result of a search for the "What the government's doing about economic growth in rural areas". There is a collection of documents with no coherence:[5]
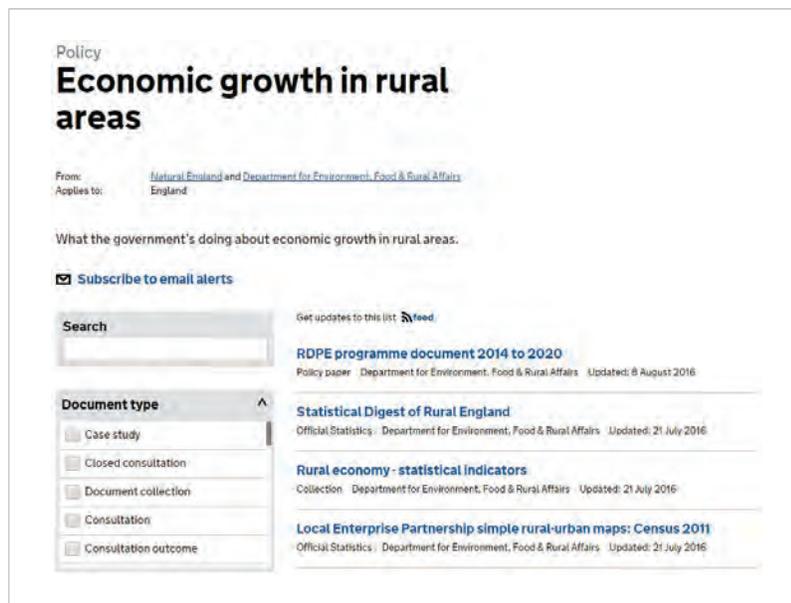
We therefore had to create our master list of policies by working through all lists and references that we could find for government documents. Places where we could find policies or clues about their existence included:

- Consultations
- Government bills
- White papers
- Budget and spending review announcements
- Impact assessments
- Announcements on gov.uk and press releases
- Conservative Party Manifesto 2015
- Single departmental plans

From the resulting master list of 593 policies, we selected an initial list of 6-8 per department. These were picked on the basis of departmental priorities, as set out in their single departmental plans, but were also designed to cover the breadth of a department's work. Where there was a choice between policies — such as multiple policies contained in one strategy — we selected those that the public were most likely to be interested in (a new driving test rather than a small administrative change to the licensing body for example). Finally, we compared the selections to make sure that they were reasonably equivalent for each department. The policies and associated policy documents we assessed are listed by department in Appendix 4.

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[4] We found a similar problem when developing the framework for *Show your Workings*, see http://www.instituteforgovernment.org.uk/sites/default/files/publications/4545%20IFG%20-%20Showing%20your%20workings%20v8b.pdf p8

[5] https://www.gov.uk/government/policies/economic-growth-in-rural-areas (accessed 14th November 2016)

The list was shared with departments. A group of volunteer scorers and the steering group and research team then assessed the six policies per department. The resulting scores and comments were reviewed by the research team. From this, we have drawn examples of good and bad practice in evidence transparency.

While the scores have not been collated for an assessment of overall departmental performance, nor moderated to give a final score as they will be in 2017, where it is helpful the kinds of scores achieved by different policies and practices have been indicated.

The assessment process has raised questions to be decided upon next year, such as how best to reflect the breadth of departmental work in the sample. In the spirit of consultation that has informed this project, we will convene a methods review group that will help resolve these issues, and possibly lead to further amendments to the framework.[6]

[6] A more thorough outlining of how we evaluated transparency of evidence in government can be found in Appendix 1.

1.4 Summary of findings

Readers are reminded that our aim here is to improve use of evidence and engagement with the evidence used in policymaking through **increasing transparency.** Transparency is a prerequisite to assessing quality. This review assesses transparency, not the quality of the evidence used or the merits of the policy. A well-founded policy and a poorly founded policy may both score well for transparency. A transparent evidence base enables a better conversation about the pros and cons of any policy.

Our assessment showed that while there were some examples of very good practice (which shows the standards we are setting are attainable), there were some general shortcomings in departmental approaches to evidence transparency. In particular:

1.   **Sharing work done**

Departments should make available (and clearly reference) the research and reviews that they have conducted to inform a policy, so that the public can understand the rationale for it.

2.   **Poor referencing**

Referencing needs to be more specific and useful. Some policies linked to significant documents, showed clearly which points were referenced to which sources and how these were relevant to the government's conclusions. Most didn't. We couldn't locate guidance on referencing for government documents, which might help.

3.   **A clear chain of reasoning**

People should be able to follow the thinking between Diagnosis, Proposal, Implementation and Testing & Evaluation. The most transparent proposals demonstrated the chain of reasoning as to what the problem was and why the policy was the chosen response, and included discussion about the limitations of the evidence.

4.   **Manifesto-derived policy commitments can be transparent**

Policies that originated in manifesto commitments featured among the best and the worst for transparency. This seems to have been influenced by whether they are concerned with outcomes (ends) or with specific measures to achieve them (means), and whether departments consulted on their development.

5.   **Budget announcements**

Policies announced in the Budget or Autumn Statement were significantly less transparent about the underlying evidence than other policies.

6.   **Alternatives**

There was very little transparency overall about the consideration given to other policy options, even though this is a requirement in impact assessments.

7.   **Modelling policy impacts**

Some departments have found clear and impressive ways to share their modelling and the assumptions behind models.

8.   **Testing and evaluation**

There is a lot of scope to improve the description of plans for testing and evaluation and for what consultations will do with inputs. Few policies scored well on this. Policies with clear testing and evaluation plans tended to be clearer about the evidence for the scope and scale of the issues they were addressing.

Many of the problems raised are easily remedied and if addressed, would make a substantial difference to government's performance on evidence transparency ahead of next year's full ranking of departments. This report looks first at findings in relation to the four areas of the transparency framework and then at practices relevant to all parts of the policy proposal.

SECTIONS OF THE FRAMEWORK

In the following pages we have set out good and bad examples of transparency against the four sections of the framework and where useful we have indicated how our scorers rated them. The examples are not exhaustive and some of the policies we assessed could have been mentioned under a number of headings, but we have sought to show a range of examples across different areas of policy.

2.1 Diagnosis

The starting point of a robust policy is an understanding of the problem it is trying to address. This helps people understand the need for it and any relevant information they should raise. It also makes it possible to assess whether the policy is likely to have its intended effect, and later whether it has had that effect. Departments should describe what they know about the issue, its causes, effects and scale, and they should set out the sources from which they have drawn that knowledge.

We found some good examples of departments doing this. Policies that were at a very early stage of development still did well where the departments in question had diagnosed the problem transparently and been clear about how the next stages would be developed. For the Department for Transport (DfT)'s policy on New Bus Franchising Powers for Local Authorities, which would be part of the Bus Services Bill, we looked at the very early-stage paper created for its bus reform workshops.[7] This paper had a thorough look at trends in bus use by geographic area. For the mooted franchising policy, it set out principles and different models of franchising appropriate for an early-stage document. It was clear about which points were to be decided on.

The Cabinet Office's proposal to Establish Common Measures of Socio-Economic Background, also very early stage, was accompanied by thorough discussion of the problem and uncertainties in the evidence base. Studies that showed the benefits of a diverse workforce were clearly cited:[8]

1. There is a clear business case for increased diversity of our workforces. Recent findings from McKinsey show that "inherent diversity" (gender, race and socio-economic background) and "acquired diversity" (experience and skills) leads to improved business outcomes, including companies with such "two dimensional diversity" having 45% more market share. These findings align with a report by Boston Consulting Group for the Sutton Trust in 2010, which found that failing to improve low levels of social mobility will cost the UK economy up to £140 billion a year by 2050 – or an additional 4% of Gross Domestic Product. Having a dependable and consistent measure for socio-economic background is an essential element in attempting to address unequal access to education and the workplace.

2. We therefore believe that this work in developing a common set of measures for SEB will enable us to establish evidenced interventions to achieve a more inclusive workforce. Researchers have already established tools looking at a range of factors to determine SEB and there are good practices from many employers, academics and within the higher education sector. We intend to build on these established practices by identifying a set of nationally accepted measures for employers to identify the SEB of applicants, and their workforce. These measures need to be a sensible balance of robust and practicable.

[7] Bus Reform Workshops Background Document: Moving Britain Ahead, September 2015

[8] Engagement Document: Developing a Common Set of Measures for Employers on the Socio-Economic Backgrounds of their Workforce and Applicants, May 2016, p3

The Home Office's consultation on Introducing a Stalking Protection Order explained (and elsewhere referenced) its view on the limitations of existing measures: [9]

> To label stalking as a different offence may also risk cases of serial perpetration being missed. If criminal justice or police records indicate that previous offending was harassment, anti-social behaviour, or even criminal damage, but these incidents are not identified as forming part of a stalking campaign, there is a possibility that the level of risk to any future victims could be underestimated and could even put lives at risk.
>
> • **Section 3 Injunctions** are available to victims of stalking and harassment without a prosecution being brought. These do have limitations in that only the victim can apply for these injunctions and may not wish (or fear) to do so. An order allowing the police to apply as well could be beneficial. Section 3 does not include any provision for positive requirements to be placed on the perpetrator. We are keen to explore the potential of an order which would include appropriate requirements to manage and deter the perpetrator before they become entrenched in their fixation on the victim.

The Background chapter of the Department of Culture, Media and Sport (DCMS)'s consultation on Requiring Direct Marketing Callers to Provide Calling Line Identification showed the chain of reasoning, with references to the evidence base throughout, from diagnosing the problem to demonstrating why current measures are not effective: [10]

> 1.3   However, despite an increase in enforcement action, some organisations continue to breach the law; and in a significant proportion of cases the failure to provide Calling Line Identification (CLI) is making it more difficult for the ICO and Ofcom to pursue enforcement action against them. The scale of the problem is highlighted by the statistics. Of the 149,016 complaints received by the ICO about live and automated direct marketing calls in 2014, 15% didn't provide CLI.   This was further highlighted in a 2015 survey by Ofcom that found that valid CLI was recorded by consumers for just 39% of all nuisance calls (including direct marketing) received[4].

The Department for Communities and Local Government (DCLG)'s Promoting Supply of Starter Homes, part of the Housing and Planning Bill, scored 2s for Diagnosis with its background evidence section. Scorers felt that they understood the basis of the government's contention that there is a shortfall in the construction and completion of new houses: [11]

> **A.   The supply of suitable land**
>
> The delivery of new housing requires land supply. The amount of land in England is fixed with a land area of just over 13 million hectares[3] Of this land, around 11 per cent[4] is developed. Whilst this might imply there is no fundamental issue with land supply, two major considerations must be taken into account.
>
> Firstly, the suitability of land. More than a third of England's land area is protected from development through being part of an Area of Outstanding Natural Beauty, a National Park or part of the Green Belt. These designations reduce the overall area in which housing can and should be built. In 2013/14 the majority (60 per cent) of newly created residential addresses were on brownfield land.
>
> Secondly, making sure homes are provided where people want to live. Since 89 per cent of England remains undeveloped, with many parts unprotected by designations, there is clearly enough space across the country to accept the number of homes required. But, currently those areas of high demand often have the highest proportion of planning constraints.
>
> [2] DCLG (2013) https://www.gov.uk/government/publications/household-interim-projections-2011-to-2021-in-england
> [3] Ordnance Survey
> [4] Office for National Statistics Built up Areas 2011

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[9]   Introducing a Stalking Protection Order – a consultation, December 2015, p11 para 5

[10]   Requiring Direct Marketing Callers to Provide Calling Line Identification, January 2016, pp7-8

[11]   Housing and Planning Bill 2015/16: Impact Assessment, October 2015, p16

However, where several measures are linked in the same bill or strategy, departments need to be clear about the diagnosis for each issue. In DCLG's Broadening the Definition of Affordable Housing in the same bill, scorers had difficulty working out which issue that policy was trying to address. After several readings it appeared to be that there are new models of affordable home ownership and the current planning framework doesn't recognise them, but this was hard to disentangle from the other issues set out in the bill.

Among the lower scores for Diagnosis, the Cabinet Office's proposal for an Anti-Lobbying Clause in Government Grant Agreements — set out in a press release and a summary of the measure – contained just an unreferenced mention of external commentary about the issue and gave no indication as to what government believed to be its scale, cause or effects:[12]

> The Institute of Economic Affairs has undertaken extensive research on so-called 'sock puppets', exposing the practice of taxpayers' money given to pressure groups being diverted to fund lobbying rather than the good causes or public services.

It referred to a successful pilot of the new rule in another department but the link it provided went straight to another government press release, which in turn referenced a speech by the minister. We note that the lack of transparency about the issue being addressed in this case led to public speculation about the reason for the policy, some of which was probably unfounded.

The Department for Work and Pensions (DWP)'s proposal on Limiting the Child Element of Universal Credit and Tax Credits was introduced in the Summer Budget 2015 and brought forward by the Welfare Reform and Work Bill straight afterwards. It scored very poorly for transparency. Claims were made about the problem and the impact of the policy without any discussion about where these assumptions came from, and no evidence was mentioned or referenced. While it is concerned with fairness, it made a lot of testable claims that should have associated evidence or an explanation about their source.

The Department of Energy and Climate Change (Decc)'s Contracts for Difference for Carbon Capture and Storage, while achieving a basic level of transparency and some good scores for referencing, did not explain the source of its claim that the current regulations were deficient, though this point was repeated often in a variety of ways. Scorers struggled to understand the problem the policy was intending to fix. Decc's draft legislation Providing Ofgem with Powers to Implement Switching and Settlement Reforms had a similar lack of transparency about the source of its claim that the powers are needed, which contrasts with the discussion about uncertainties about the projections and other transparent aspects of the policy.

The Treasury's consultation on Abolishing the Carbon Reduction Commitment also lacked transparency in setting out the evidence behind its diagnosis. This consultation scored poorly on transparency in the other sections of the framework too.

The Department for Environment, Food and Rural Affairs (Defra)'s Single Animal Establishment Licence was quite typical in setting out a logical rationale but not providing a transparent source-able account of the scale and significance, in this case of the problems of multiple licences:[13]

> Animal licences have developed over time, through a series of different Acts of Parliament. As a result, although the licensing schemes are generally similar, and usually administered by the same local authority staff, each activity is regulated separately by one or several specific pieces of legislation. Dog breeding, for instance, is regulated by three separate laws. This creates unnecessary complexity around the legal requirements, for both local authorities and businesses. Moreover, some types of businesses require more than one type of licence – both an animal boarding and pet shop licence, for example – for broadly similar and related activities.
>
> We propose, therefore, to introduce revised regulations under the Animal Welfare Act 2006, which update and consolidate the animal licensing system into a single piece of legislation. We would also take the opportunity to simplify the administrative process, and reflect up-to-date knowledge on animal health and welfare.

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[12] Government announces new clause to be inserted into grant agreements, Cabinet Office press release, 6th February 2016 https://www.gov.uk/government/news/government-announces-new-clause-to-be-inserted-into-grant-agreements (accessed 14th November 2016)

[13] Consultation on the review of animal establishments licensing in England, December 2016, p6, para1-2

2.2 Proposal

Once departments have diagnosed a problem, they need to develop a clear hypothesis about how an intervention might help address it and deliver the government's objectives. Departments would usually draw on evidence — from past attempts to address a similar problem, evaluations of those attempts, international or other jurisdictional experience or academic research — to justify why they have reason to believe their intervention might work.

We expected to be able to tell why the government had chosen its intervention, and what others it had considered, what evidence, if any, that choice was based on and how policymakers had assessed the evidence base, including what had been tried before and whether that worked. We also expected to see what the government planned to do about anything it had not yet worked out, what the costs and benefits are estimated to be and the assumptions behind those calculations. What's available will sometimes be of very limited relevance — but in such cases we would expect departments to be clear on this and explain how they are taking that into account as the policy proceeds, by for example piloting and establishing mechanisms for rapid feedback and adaptation.

Overall we noted an unsurprising relationship between the care and attention given to communicating the basis of the diagnosis and the transparency of conclusions about the proposal.

The Department of Health (DH)'s New Alcohol Guidelines proposal scored highly for transparency on both Diagnosis and Proposal: the material that the department had used for the Diagnosis and Proposal were clear and the government's view on its strengths and weaknesses was presented and frank, eg on early pregnancy effects, "Relevant good quality studies are few" (section 99).[14] That transparency has enabled a lively debate to ensue about whether the evidence justifies the content of the guidelines the department issued.

The Department for Education (DfE)'s proposal for a New Social Work Regulator was poor on the transparency of its Diagnosis, scoring mostly 0s and 1s. It cited and linked to three reports on social work education and bureaucracy in the system but gave no explanation of how these reports informed its proposals (expanding existing programmes, setting professional standards and setting up a new regulatory body). Other departments with policies at a similar early stage managed to do much better than this.

While a link between transparency of Diagnosis and Proposal was generally evident, there were notable examples where very dense and detailed material in the Diagnosis then made it difficult to see how the Proposal emerged from it. When trying to explain, or understand, what the government is trying to do and why, explaining the relevance and impact of material on the way the department has developed the policy proposal is more transparent than heaping on further material. This section of DH's proposal for Infected Blood: Reform of Support is one example of sharing reasoning transparently, carrying through points from its diagnosis of the issue, including the limitations of that evidence, to the proposal and its calculations of value for money: it would have scored a 3 with better referencing (though it won't win any prizes for clear prose):[15]

[14] Alcohol Guidelines Review — Report from the Guidelines development group to the UK Chief Medical Officers, January 2016, p29

[15] Developing a new system of financial and other support for people infected with hepatitis C and/or HIV through blood and blood products in the UK, January 2015, p10

Value for money of spending the pre-existing budget

45. The part of the pre-existing (Option 1) budget that is not used to fund continuation of fixed annual payments and other payments, such as lump sums, would be reallocated in a way that is designed to meet the objectives of creating a simpler scheme and linking new annual payments on the impact of infection, including as a result of treatment, on each person's health. If only the pre-existing budget were available, this reallocation would mean that, compared with Option 1, some individuals could receive higher or lower payments in future than they would otherwise have done. In purely financial terms, these changes would necessarily balance out. There are two possible arguments according to which the *social value* of such changes might not balance out, neither of which apply here. The first would occur if there were substantial differences in incomes. As set out in the Treasury Green Book guidance, people with lower incomes in general gain more value from an extra pound of income. The Department of Health does not hold data on the income of individuals who receive ex-gratia payments. One of the objectives of Option 2 is to link the assistance a person receives to the impact that infection is having on their health We would therefore expect those gaining most to comprise individuals who have lower health related quality of life. Research conducted by the University of Sheffield's School of Health and Related research (ScHARR) has measured the link between health related quality of life, age and productivity. Unsurprisingly, productivity declines with age and increases with health related quality of life. To the extent that productivity determines workplace earnings, we would expect that people with lower quality of life will have lower earnings. However, workplace earnings are only one aspect of an individual's income. Among other things, state welfare payments, returns on investments and, in the case of infected blood, ex-gratia payments all contribute to income. There is thus an argument that the proposed redistribution would lead to a net increase in social value, but it is far from conclusive. An additional (and contrary) argument is that in general losses from a given starting point are psychologically valued more highly than gains, so that redistribution will in general reduce net value. Whilst there is evidence for this effect, standard practice in valuation of public policy is to ignore this differential, which would otherwise lead to a strong bias in favour of the status quo. A differential may be applied in decisions that involve prospective prevention of harm to health, but this is not the case here.

46. In the absence of further evidence, it is therefore reasonable to assume that the net welfare effect of the redistribution of payments is neutral.

The Treasury's proposal for Strengthening the Governance, Accountability and Transparency of the Bank of England was one of the most consistent policies, scoring 2s across the framework. It referenced the evidence behind its proposal and had a straightforward, easy-to-follow description of the basis for its identification of a problem, the proposal to deal with it and assumptions about how it would be implemented.

It was rare for departments to show they had considered alternative approaches, although there were exceptions. The Cabinet Office's engagement document on Establishing Common Measures of Socio-Economic Background transparently laid out a range of potential measures, along with its assessment of the pros and cons of each. These were linked to evidence, as seen in this example relating to parental income or wealth on page 16: [16]

As part of the last Child Poverty Strategy, the government produced a comprehensive evidence review, detailing the multiple aspects of child poverty that have greatest effect on an individual's outcomes.

Parental income or wealth at age X.

Pros

✓ The measure is likely to be easily understood by employers and employees

✓ Responses, when put in real terms, would be comparable across employers

✓ Responses, with adjustment, would be comparable over time

✓ As responses are scalar, they would provide a sense of scale of deprivation.

Cons

✗ Income and wealth are highly sensitive topics, which may affect response rates to the question posed

✗ The individual may not have known, or may not remember their parent's income or wealth

✗ To compare across individuals / organisations / time, the income / wealth would need to be understood in context. This would require an additional question about the date this related to or current age of the individual to be posed. Given the adjustments which will need to be made to the values, firms which are smaller in size may find this measure more difficult to analyse.

DCLG's proposed reforms to the New Homes Bonus were a model for setting out the rationale behind choices. The strengths and weaknesses of alternative options were considered in detail and reasons for not taking them were transparent: [17]

3.30. An **alternative option** would be to set a baseline based on the average growth rate of dwellings in each local authority or local area. However, potentially, this would have the impact of "rewarding" authorities who had only achieved low growth in the past and penalising those who had done well. In addition, it could result in large numbers of authorities not receiving a Bonus payment at all (using 2016-17 provisional figures, we estimate that around 65 authorities would fall outside the Bonus with a "moderate" baseline of 0.5%). This could have the perverse impact of reducing the significance of the Bonus for those authorities and, thus, eroding its incentive effect overall.

[16] Engagement Document: Developing a Common set of Measures for Employers on the Socio-Economic Backgrounds of their Workforce and Applicants, May 2016, Appendix 1 Possible measures of socio-economic

[17] New Homes Bonus: Sharpening the Incentive - Technical Consultation, December 2016, p16

2.3 Implementation

Once the government has proposed an intervention, it needs to work out the ways to make that happen. There are often choices on the best way to deliver the policy, and departments should be able to explain why they have chosen one way over another and what evidence they have used, as well as cost and benefit calculations and the assumptions behind them. There should also be some discussion of the opportunity cost of the new intervention if it is likely to divert resources from existing activity. But often implementation issues — which are the root of many policy failures — are not thoroughly considered when a policy is proposed. Transparency about the evidence behind plans to implement policies was an area of weakness for many policy documents, including those that had scored well on other parts of the framework.

DH's Death Certification Reforms was an example of good practice in transparency. The planned implementation was linked to lessons from pilot programmes, as seen on p70 of the consultation document:[18]

> The Office for National Statistics carried out a case study[18] analysing just over 5000 records supplied by the pilots, comparing the cause of death proposed by the certifier and the cause confirmed by a medical examiner after scrutiny.

A "lessons from the pilots" document accompanied the consultation, providing further evidence. The consultation also identified outstanding questions for implementing the policy, such as this example:[19]

> **Who should be responsible for paying the fee?**
>
> 3.5   There needs to be a simple way for families and local authorities to understand who is responsible for paying the fee, or for ensuring that it is paid. There are various ways in which this person might be identified but we believe the main choices are:
>
> - The person who collects the MCCD; or
> - The person who registers the death at a register office.

Scorers did not find much mention of the evidence behind options for implementing the Apprenticeships Levy, which was a proposal where the Department for Business, Innovation and Skills (BIS) led on the implementation of a policy first announced in the Budget. They found none in the implementation aspects of the Treasury's Help to Save, which discussed two alternative methods of implementation on which the government was hoping to consult. DfT's and Transport for London (TfL)'s joint prospectus on a New Partnership for Rail Passenger Services in the South East explored ways of improving services, such as new metro-style trains, but it was vague as to the information these were drawn from. An appendix presented different options for implementation, but little in the way of costs and benefits or what was being looked at in relation to each option.

[18] Introduction of Medical Examiners and Reforms to Death Certification in England and Wales: Policy and Draft Regulations — Consultation, March 2016, p70 para7.135

[19] Ibid p22

Showing the department's modelling

Transparent implementation plans included, where relevant, the department's modelling of costs and benefits. We found a number of really good examples of this.

The Ministry of Justice (MoJ)'s Rationalising the Court and Tribunal Estate achieved a mid-level score for sharing reflections on its calculations:[20]

Risks and Assumptions

50. It is assumed that there is no change in the volume of court cases, court fees or court user waiting times while at court. There is a risk, however, that longer journey times might impact on service delivery (e.g., leading to an increase in waiting times) or trial effectiveness rates (e.g., leading to an increase in the number of cracked or ineffective trials).

The best examples of this set out the calculations used as well as the methods used to make them and the assumptions behind input figures. One example of this was Defra's proposal for Changes to Plastic and Glass Packaging Recycling Business Targets. The consultation provided five options and indicated the government's preferred one. It clearly displayed the modelling for the costs and benefits of each option (p15).[21]

The accompanying impact assessment provided a breakdown of the costs and benefits of each option for amended glass and plastic recycling targets. There was analysis of the costs and benefits not just of the headline targets, but also sub-issues such as carbon saving. The document set out the assumptions behind its modelling and provided a sensitivity analysis that outlines assumptions made by the department and how they affect the calculations (p21 of the impact assessment):[22]

Sensitivity
The results are sensitive to several assumptions, particularly material price assumptions.

Glass prices are currently the lowest they have been since 2008. Therefore we use current glass prices for the lowest NPV scenario, as well as the best estimate scenario. We use the highest prices seen since 2008 for the high scenario.

For plastic we assume material prices could be 50% higher or lower than current prices for the high, low and best estimates respectively. This is consistent with the kind of volatility we have seen in recent years. There could be low material plastic prices at the negative extreme or at the positive extreme the material price for PTTs (which will be an increasing proportion of the recycling required if targets increase) may increase if better end markets develop.

Continues on next page [p16].

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[20] Impact Assessment on Her Majesty's Courts and Tribunals Service proposals on the provision of courts services in England and Wales, July 2016, p11

[21] Consultation on changes to the plastic packaging recycling business targets for 2016-17 and new targets for plastic and glass for 2018-20, November 2015

[22] Plastic & Glass Packaging Recycling Business Targets 2016-2020, November 2015, p21

The table below summarises the effect on the NPV of each option using the low and high material price assumptions:

Variable	Best Estimate	Low Estimate	High Estimate	NPV change (relative to best estimate) Low: option 1; option 2; option 3; option 4; option 5 High: option 1; option 2; option 3; option 4; option 5
Plastic material prices	£71	£36	£107	-£30m; -£11m; -£21m; no change; no change +£31m; +£12m; +£22m; no change; no change

Defra's Banning the Burning of Waste Oil as a Fuel in Heaters achieved slightly lower, mid-level scores for Implementation however, because it did not indicate the sources for its calculations. DfE's Schools National Funding Formula scored highly for referencing the material in its tables and showing what lay behind its assumptions.

Decc's proposal for Reforms to the Warm Home Discount Scheme was another example of transparency of modelling. The impact assessment had a comprehensive set of models exploring the costs and benefits of the proposals. A range of factors, such as the impact on energy demand and changes to household bills were taken into account (along with references to the sources that informed the department's assumptions). The results of Decc's analysis were presented in tables like the one below: [23]

50. Table 4.2 presents the Net Present Values (NPV) of the central scenario:

Table 4.2 – Summary of discounted costs and benefits (£ millions)

		Policy Option 1
Benefits	Equity weighted value of rebate (including the impact of the £20m from II)	294
	Increase in equity weighted comfort (including the impact of the £20m from II)	205
	Remaining £10m of Industry Initiatives (not equity weighted)	10
	Total Benefit	**509**
Costs	Equity weighted value of bill increase	407
	Admin costs to Industry[28]	[10]
	Reduction in utility from lower energy consumption (bill-payers)	3
	Resource Costs	58
	Carbon Costs	17
	Air Quality	3
	Administrative Costs – Government	2
	Total Cost	**490**
	NPV	**19**

[23] Impact Assessment: Warm Home Discount: Extension 2016/17, April 2016, p14

The risks and sensitivities that could affect Decc's models were also addressed and presented.

DWP's proposed Cap on Early Exit Charges for Members of Occupational Pension Schemes was a further high scoring example, with its transparent display of the costs and benefits calculated by the department under five different scenarios. See this example of the calculations for charges faced under a 2% cap (p18 of the impact assessment): [24]

2% exit charge cap

49. Table 3 below shows that under a 2% cap the estimated total charges received would be £1.94 million. This means the total estimated charges foregone under a 2% cap are £3.88 million (£5.82m minus £1.94m) with 3,925 members directly benefitting.

Table 3: Total charges faced by trust-based members exiting early under a 2% cap

Charge %	Mean exit charge in this band with a 2% cap (A)	Number of pots (B)	Total amount of exit charges in the sample (A x B)
0-1	£83.80	3,067	£257,013
1-2	£251.41	1,464	£368,069
2-3	£335.21	896	£300,378
3-4	£335.21	682	£228,456
4-5	£335.21	505	£169,227
5-6	£335.21	442	£148,074
6-7	£335.21	177	£59,229
7-8	£335.21	151	£50,768
8-9	£335.21	126	£42,307
9-10	£335.21	114	£38,076
10-15	£335.21	328	£109,998
15-20	£335.21	240	£80,383
20-40	£335.21	215	£71,921
40+	£335.21	50	£16,923

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[24] Introducing a cap on early exit charges in trust-based occupational pension schemes, May 2016, p18

In DCLG's technical consultation on Reforms to the New Homes Bonus the appended technical consultation provided a worked example of a hypothetical local authority under the new bands. See p22 for example: [25]

Annex – Worked Example

Suppose a unitary local authority has 10,000 dwellings in their council taxbase in October 2015 and these are spread evenly across the council tax bands. If there was a net increase of 80 dwellings added during the following year, evenly spread across the council tax bands, then this would equate to an increase of 97 band D equivalent dwellings.

	Band A	Band B	Band C	Band D	Band E	Band F	Band G	Band H	Total
Adjustment factor for Band D	6/9	7/9	8/9	9/9	11/9	13/9	15/9	18/9	
2015 council taxbase	1,250	1,250	1,250	1,250	1,250	1,250	1,250	1,250	10,000
Net additions	10	10	10	10	10	10	10	10	80
Additions (Band D equivalents)	7	8	9	10	12	14	17	20	97

Assuming 10 of these new dwellings were eligible for the affordable housing premium and applying the latest average Band D council tax rate (2015/16 - £1,483.58) then that local authority would be eligible for the following payments under an unreformed New Homes Bonus scheme in 2017/18:

Band D equivalents	97
Average band D	£1,483.58
Sub-total:	£143,413
Affordable housing premium (per unit)	£350
Affordable housing supply	10
Sub-total:	£3,500
Total Bonus:	£146,913

Again, the modelling did not just show the headline costs and benefits, but also the impact of the policy under several different scenarios, such as when the local authority had seen planning decisions appealed.

Defra's proposals for Clean Air Zones, which were part of the Draft Air Quality Plans, laid out cost and benefit models in a single accessible document, an Evidence Annex. There was an exploration of the costs and benefits to society, "comparing improvements in air quality against the associated costs of implementation" (see pp20-21). [26]

Most of the examples of modelling were found in impact assessments.

[25] New Homes Bonus: Sharpening the Incentive - Technical Consultation, December 2015, p22

[26] Draft Evidence Annex: Assessment of the plans to improve air quality in the UK, September 2015, p20-21

Impact assessments: do they make a difference?

Impact assessments have to be provided by departments alongside proposals for a particular kind of policy — those with a regulatory impact on business or community organisations. They must provide a rationale for government intervention, the options considered, and the costs and benefits of the policy.[27] The Regulatory Policy Committee (RPC)'s guidance on impact assessments encourages departments to produce reliable evidence for costs and benefits and ensure they have substantive evidence.[28] These are submitted to the RPC and given red, amber or green ratings depending on the evidence presented. Our assessment suggests the rigours of producing an impact assessment improve transparency in relation to cost and benefit modelling.

The calculations of value for money, and the evidence behind these, tended to be stronger in documents with impact assessments. Within these, a good example was DH's policy Extending Charges for NHS Services for Overseas Visitors and Migrants, which set out details of costs and benefits so that its value for money calculations could be looked at for each of the options, explained the baseline for these and the assumptions being made. In most of the other types of policy proposals this information was patchy if it existed.

More broadly, there was little to distinguish our top and bottom performers overall with respect to having an impact assessment or not, although the requirement to produce an impact assessment seemed to raise the transparency standard off the bottom level — none of our worst performers were policies where departments had been required to produce an impact assessment. At the other end, there were examples of high scoring transparent policies that had not been obliged to produce impact assessments. A look at the scores allotted to each policy showed that those with impact assessments appeared to do slightly better on transparency for Diagnosis, Proposal and Implementation, though not Testing and Evaluation.

This suggests that the discipline of having to produce an impact assessment, with the necessary cost/benefit analysis and consideration of alternative options, does compel departments to set out the evidence used. However we recognise that the contribution of clear cost/benefit analyses to our transparency scores against Proposal and Implementation may mask relatively less transparent behaviour in other aspects. Our sample was not big enough to draw any firm conclusion. We are at an early stage of our comparative work, but we may want to investigate the effects of impact assessments on transparency in the full ranking stage.

[27] Better Regulation Framework Manual: Practical Guidance for UK Government Officials, March 2015, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/468831/bis-13-1038-Better-regulation-framework-manual.pdf

[28] Regulatory Policy Committee: recommendations used when scrutinising impact assessments, May 2014, https://www.gov.uk/government/publications/how-the-regulatory-policy-committee-scrutinises-impact-assessments/regulatory-policy-committee-recommendations-used-when-scrutinising-impact-assessments

2.4 Testing and Evaluation

Testing allows policy development to be informed by real world experience, to gather information and feedback, and to incorporate unforeseen influences on the policy's effects before embarking on any major costs and reorganisation. Evaluation promotes a more systematic and objective organisation of information about the policy's effects, which as well as informing policy development is an essential part of the accountability of government.

The Testing and Evaluation section was an area of weakness for many documents: it tended to be something that was done well or not at all. It was rare for policy documents to include plans to measure the impact of the policy, or to outline the department's next steps in developing it. It was slightly more common for consultations to set out clearly what would be done with the inputs, although still only around half of those in our sample scored 2 or above for this, which is hard to understand as it's a straightforward, well-established requirement.

The best documents had clear plans to measure success and timetables for evaluation. DCMS's Cultural Protection Fund was one of the most transparent in this section of the framework. For instance, there was a clear proposition for a monitoring and evaluation scheme for the Fund, and acknowledgement of the difficulty of measuring things such as social development and wellbeing (pp18-19 of the consultation):[29]

2.1.3 Project monitoring and evaluation

Project monitoring and evaluation is a government requirement and is crucial to ensuring that grant funding is allocated efficiently and to where it is most needed.

The Fund's administering body will be responsible for monitoring and evaluation of projects. This will take place regularly to ensure the viability of projects and that funding is directed most effectively. It is expected that project evaluation will require reporting

against measures which are linked to the fund outcomes and with assessment of the realised project benefits.

We are aware that there are difficulties in measuring some of the benefits linked to the outcomes of likely projects under the Fund. For example social development and wellbeing may be harder to capture than other benefits such as economic impact.

This would have been improved if DCMS had outlined what the measures are, how they would be developed, and when it would report on progress. A good example of doing this was DfE's plans for Full Academisation of the School System, which, while not well referenced (see below), were transparent on Testing and Evaluation, with clear, accountable plans for measurements and for publication of some of these annually, such as the Parent Portal and new performance tables website.

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[29] Cultural Protection Fund: Government Proposals to Protect Cultural Heritage Overseas, January 2016, pp18-19

Another example of good practice in evaluation is the Draft Air Quality Plans, which showed what the department expected the policy to achieve and by what date.[30] Defra's consultation on Statutory Post-Movement Testing of Cattle for TB also stood out. There is a stated desire to pilot elements of the policy intervention, along with a set of criteria for doing this (p9 of the consultation):[31]

> 10.3   We would like to pilot such a scheme to gauge likely levels of uptake and the impact on this specific disease risk. But further work is required to fully develop a specific proposal. In particular, we need to:
>
> - Decide on eligibility criteria for a Government-funded pre-sale TB check test – based on factors such as lot size, type of animal and time since the last negative TB herd test on the farm of origin.
>
> - Identify how best to encourage uptake.
>
> - Determine the likely cost for Defra.
>
> - Decide how success should be measured, the length of the pilot and how to modify the proposed voluntary scheme in response to the uptake.

DCMS's Sports Governance Code was aligned to some of its key performance indicators (p80),[32] which increased the transparency score, though it was noted that it was not possible to tell how the baseline for these would be determined.

DfE's National Teaching Service plans included a pilot and scored more highly on Testing and Evaluation than on other parts of the framework. It was noted that it was not especially clear about how the pilot will affect the plans for the full roll-out of the programme.[33]

> 3.17.   The most significant of these new programmes will be the National Teaching Service (NTS), through which underperforming schools in challenging areas will be able to request support from elite teachers and middle leaders for up to three years. These teachers and middle leaders will receive a package of support and a clear path to promotion – creating a career pathway for talented teachers and leaders working in challenging schools. We will start a pilot in the north-west from September 2016 with up to 100 participants. By 2020 the NTS will have placed 1,500 high-performing teachers and middle leaders into challenging schools across the country.

[30] Draft plans to improve air quality in the UK: Tackling nitrogen dioxide in our towns and cities – UK overview document, September 2015, pp7-10

[31] Improving TB Cattle Controls, including a proposal for statutory post-movement testing, August 2015

[32] Sporting Future: A New Strategy for an Active Nation, December 2015, p80

[33] Educational Excellence Everywhere, March 2016, p475

Largely, though, Testing and Evaluation was not shared with the public, which may mean that there are no serious plans to do it, that it's not been thought about, that departments are not inclined to be open about it, or that they are not putting effort into communicating it. DCLG's Promoting Supply of Starter Homes had scored well (2s) on Diagnosis but referred to Testing and Evaluation in a way that people outside of the policy process would likely read as diffident (p6 of the impact assessment):[34]

Will policy be reviewed?

The Department will in the normal way undertake a post-legislative review of these provisions within three to five years after Royal Assent.

The department's Right to Buy for Housing Association Tenants also gave little information about next steps. The Starter Homes section of the same bill achieved better scores for this (a mix of 1s and 2s).

What consultations will do with inputs

We took into account the early stage of the policies in relation to plans for Testing and Evaluation. For early stage consultations we looked simply at whether they were clear about the planned uses of inputs and the next stage of policy development.

There was an issue across departments with consultations not explaining what would be done with the information collected. One example is Decc's proposed Changes to Financial Support for Solar PV [photovoltaics], which scored very well on Diagnosis, Proposal and Implementation, but poorly on Testing and Evaluation because it did not explain what it would do with the next round of information gathering in sufficient detail. Defra's Banning the Burning of Waste Oil as a Fuel in Heaters, while scoring reasonably well against other parts of the framework, was not transparent about next steps, scoring a mix of 1s and 0s.

In contrast, DCLG's technical consultation on Reforms to the New Homes Bonus, the Home Office's consultation on the Stalking Protection Order, Defra's Draft Air Quality Plans, and the Cabinet Office's Establishing Common Measures of Socio-Economic Background were all credited for being clear about how they would respond to inputs. The Cabinet Office's English Language Requirements for Public Sector Workers was an example of being able to give transparent explanations about this at a very early stage of development (p11 of impact assessment):[35]

Scale of the impacts of the policy

42. At this stage of policy development we are not certain how many public sector roles will fall under the scope of this policy or how many organisations will be impacted. We expect consultation to provide this information and to shape our expectations of what organisations are involved with public sector employment. Given the current lack of information we have not attempted to provide monetary estimates of the costs and benefits of the policy at this stage, however we provide the following estimates of the potential numbers affected by the policy to give some indication of its scope and the likely scale of impact. All estimates of the numbers of workers affected, below, will be refined through consultation. The costs and benefits which are then outlined, below, are largely incurred on a per worker, or per organisation basis, so these initial estimates of the total population concerned may be used to indicate the scale of costs and benefits very approximately.

"…The Code of Practice will be prepared once a full understanding of the effect of the statutory duty on public services has been gained through consultation."

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[34] Housing and Planning Bill 2015/16: Impact Assessment, October 2015, p6

[35] English Language Requirement for Public Sector Workers: impact assessment, August 2015, p11

DH's proposal for Extending Charges for NHS Services for Overseas Visitors and Migrants was clear about the way that the consultation would be used to develop the policy (and would have scored 2s across the board if it had indicated what the basis was for its plans for implementation).

DfT's Changes to the Driving Test: 'Cashback' proposal was at an early stage of development and was transparent in its report about the gaps left by the strategy consultation: [36]

Financial Incentives

2.10 In the strategy consultation we raised the possibility of some kind of financial incentive to greater preparedness. While respondents to the consultation welcomed initiatives that encouraged pre-test practice, they were generally sceptical that the suggested 'cashback' would be sufficient to shift behaviour. We need to understand better the influences on behaviour that will encourage better preparation.

DfE's National Funding Formula scored top marks for transparency about what would happen next:[37]

Next steps

27. This document sets out our assessment of the impact of our proposals to reform schools and high needs funding, set out in the accompanying consultation documents. It forms part of the first stage of our consultation on proposals for a national funding formula, where we are setting out the principles of funding reform, the structural changes we propose to the system, and the various factors we propose to include in the national funding formulae for schools and high needs. We would welcome further views and evidence to inform our response to this consultation, when we will finalise our proposals for the structure of the reformed funding system, including the factors that will be included in each formula. We will review our assessment in the light of responses received to the first stage of consultation and publish any updates to it through the consultation process.

28. The next stage of consultation later this year will then consider the design of the national funding formulae and exemplify the impact on individual schools and areas. We will continue to review the impact of our proposals in line with the Public Sector Equality Duty throughout the consultation process.

> Are there any other factors not included in the consultation document and not included in the assessment above that we should take into account? Has the analysis we have conducted so far captured all relevant statistics or is there further analysis we should undertake?

It is unreasonable to expect people to take the time and effort to contribute to consultations if departments are not clear about what their purpose is. When the government's consultation principles were revised in 2016, cabinet secretary Sir Jeremy Heywood pointed out, "this is not simply about open government, it is also crucial to our efforts to provide the best possible service to the public". [38]

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[36] Safe, secure, sustainable: The Motoring Services Agencies: MOTs for all makes of vehicles, April 2016, p13

[37] National funding formula: equality analysis, March 2016, p14

[38] Consultations - what's new and why they are so important, Sir Jeremy Heywood, January 2016
https://civilservice.blog.gov.uk/2016/01/15/consultations-whats-new-and-why-they-are-so-important/

CROSS-CUTTING ISSUES

Across the examples we looked at, some more general themes emerged, which we think all departments would benefit from taking account of as they look to present new policies. We set out these more general findings below.

3.1 Referencing and sharing work done

In many of the less transparent policies, it became clear that departments had looked at evidence or undertaken their own research and analysis — in some cases extensive and high quality work — but they had not shared this in their policy documents. This is a prerequisite of informed discussion — for the public, parliament and specialists — and it is essential to knowledge management within government.

In many cases, documents had used but not referenced evidence from third parties:

> The Treasury's consultation on Abolishing the Carbon Reduction Commitment said the government had "reviewed evidence on the operation of existing schemes, looked at lessons learned from schemes overseas and sought initial views from a range of businesses, academics and other bodies".[39] It made claims about how energy efficiency can spur productivity, but did not provide references or links for this.

> The Department for Business, Innovation and Skills (BIS)' consultation on Moving the Operations of the Land Registry into the Private Sector was a comprehensive 42-page document but did not reference statements such as: "The model is one which has, broadly speaking, been implemented successfully elsewhere, for example in Canada".[40] As the implementation elsewhere was described as a success, we would expect to see references to assessments. However, even if there had been no easily referenced reports to cite, the department could have provided a brief summary to make it possible to identify the examples and the indicators of success that are being referred to.

> From a review of the scores of the Department for Transport (DfT)'s policy proposal Making Tactile Paving Surfaces Easier to Use as a Navigational Tool and Warning System, we believe that the department had done a considerable amount of work on this subject, but it did not share it or set out the workings for the suggestion.

> The proposal to merge Manchester's Local Justice Areas[41] had an open discussion of alternative approaches, particularly on implementation, which would have positioned it for a high transparency score. However it did not provide much information about the sources it was using. This was also true of: the Department for Environment, Food and Rural Affairs (Defra)'s Single Animal Establishment Licence; the Department of Health (DH)'s assessment of the case for a 7-day NHS; and DfE's Educational Excellence Everywhere, where DfE had developed a methodology and underlying data for its experimental analysis but its proposal did not lead the reader to this. These left the basis for the policies open to speculation.

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[39] Reforming the business energy efficiency tax landscape, September 2015, p5 para 1.2

[40] Consultation on moving Land Registry operations to the private sector, March 2016, p21, para 73

[41] This consultation was issued by MoJ on behalf of Manchester's Judicial Business Group and HMCTS. It is not an MoJ policy, but we have retained it because it illustrates this issue.

There were plenty of examples where the policy research was transparent and included references and links to the evidence base. For example the Department for Culture, Media and Sport (DCMS)' proposal for Age Verification for Pornographic Material Online was clear about how it had used sources: [42]

70%	…of 18-year-olds surveyed felt that pornography can have a damaging impact on young people's views of sex and relationships[7].
78%	…of women questioned believed that pornography encourages society to see women as sex objects (and 61% of men)[8]
45%	…of 18 to 19-year olds frequent internet users who viewed pornography reported that in hindsight they were too young when they were first exposed to it[9]

DfT's consultation and impact assessment for increased penalties for using mobile phones while driving included accessible links to the evidence base throughout:[43]

> 1.10 New research from the Institute of Advanced Motorists (IAM) shows that 9% of drivers surveyed admitted taking a selfie whilst driving 'in the last month'. This increases to 19% of 25-35 year olds[6].
>
> [6] http://www.iam.org.uk/media-and-research/media-centre/news-archive/20671-the-new-driving-dangers-selfies-video-calls-or-just-watching-the-telly

As did the Cabinet Office's engagement document on Establishing Common Measures of Socio-Economic Background: [44]

> There is much academic literature on the link between an individual's outcomes and their parental occupation (see e.g. Sturgis and Buscha; 2015). The Office for National Statistics has also published on this topic, and it was summarised in the recent State of the Nation report from the Social Mobility Commission.

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[42] Child Safety Online: Age Verification for Pornography, February 2016, p8

[43] A consultation on changes to the Fixed Penalty Notice and penalty points for the use of a hand-held mobile phone whilst driving, January 2016, p.6

[44] Engagement Document: Developing a Common set of Measures for Employers on the Socio-Economic Backgrounds of their Workforce and Applicants, May 2016, p18

In some cases a department had undertaken or commissioned its own research, but did not mention it or reference it. The Home Office's proposal to Strengthen the Role of the Disclosure and Barring Service (DBS) in its counter-extremism strategy was set out as follows:[45]

119.   We will also **strengthen the role of the Disclosure and Barring Service (DBS)** to enable employers to identify extremists and stop them working with children and other vulnerable groups. The DBS helps employers in sensitive areas of work to safeguard their workplace by disclosing information about employees and if necessary barring them from certain roles. We will review eligibility for DBS services to ensure they cover the full range of activity where vulnerable people and young people are at risk from extremists.

120.   We will introduce measures for the DBS to notify eligible employers if it has new information about extremism relevant to an employee. We will also introduce changes to make anyone with a conviction or civil order for extremist activity subject to the DBS's automatic barring arrangements. This will mean that we can bar the most harmful extremists from working with vulnerable people.

In follow up with the department, it transpired that research had been done prior to this announcement and fed into this decision, including a remodelling review[46] of the DBS and a Criminal Records Regime review.[47] None of these were mentioned or referenced.

By contrast, DCMS' white paper on the Future of the BBC scored well for including the review behind its proposal to introduce a Unitary Board for the organisation and for specific references to the relevant parts of it that had been used to shape the policy.

When a department has undertaken its own research or reviews to inform its policies, these should be included or accessible.

[45] Counter-Extremism Strategy, October 2015, p35

[46] Vetting and Barring Scheme remodelling review, Disclosure and Barring Service, 11th February 2011 https://www.gov.uk/government/publications/vetting-and-barring-scheme-remodelling-review-report-and-recommendations

[47] Criminal Records Regime review: phase two, Home Office, November 2011 https://www.gov.uk/government/publications/criminal-records-regime-review-phase-two

3.2 Gesturing vs referencing

The provision of links and references does not itself fully satisfy transparency requirements. It might seem obvious, but the references do need to provide specific enough links to enable people to understand what piece of evidence was used to inform which aspect of the policy proposal.

We saw examples where links led to a collection of policy documents or departmental home pages with no clear direction to the evidence base. The plans for Full Academisation of the School System, laid out in DfE's *Educational Excellence Everywhere* white paper provided a footnote for the methodology behind a map showing the performance of schools in England: [48]

But it led the reader to a collection of 192 publications about transparency on DfE's gov.uk website: [49]

Another link to a 'fuller statement of DfE's strategy' leads to DfE's gov.uk home page. In both cases, a member of the public hoping to look at the evidence base would encounter substantial difficulties.

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[48] Educational Excellence Everywhere, March 2016, p6

[49] https://www.gov.uk/government/publications?keywords=&publication_filter_option=transparency-data&topics%5B%5D=all&departments%5B%5D=department-for-education&official_document_status=all&world_locations%5B%5D=all&from_date=&to_date=

Even transparent policy documents sometimes scored less well on this point. The Home Office's Single Legislative Provision to Provide for Equipment Interference (an impact assessment) was clear about the sources for its background to the issue and would have scored better if it had referenced these more precisely. As would the Department for Work and Pensions (DWP)'s Reducing the Benefit Cap to £20,000 (£23,000 for Greater London) which included a good discussion of the evidence but was quite inconsistent in providing references for it, eg:[50]

Life Chances

The new Life Chances legislation (incorporated into the Welfare Reform and Work Bill) proposes to remove a number of the legal duties and measures set out in the Child Poverty Act 2010 and to place a new duty on the Secretary of State to report annually on children in workless households and the educational attainment of children. This is because evidence shows these to be the two main factors leading to child poverty now and in the future (respectively).

The Ministry of Justice (MoJ)'s Cap on the Fees that Regulated Claims Management Companies can Charge Consumers referenced work by the Financial Ombudsman and the FCA, but it was hard to tell when referenced material ended and new material began.

Transparent can be short and simple

It would be a mistake to imagine that a document crowded with references or extensive extracts is better grounded or more transparent. References should be meaningful and useful, to enable the reader to understand how the source is relevant and to enable them to assess that source for themselves if they wish when it is the basis for a significant conclusion or the authority of a policy statement.

Length is not a prerequisite of transparency. It is not necessary to include voluminous amounts of material. What matters for transparency is clear analysis of evidence and discussion of its relationship to the policy. We saw good examples of this being achieved in some of the shortest documents we examined:

- Defra's consultation on Strengthened Measures against Epitrix was just 9 pages long. It contained clear referencing, an upfront discussion of the limitations of the policy and evidence, and clear identification of what submissions to the consultation would achieve. This was judged to be just as good as (and by some scorers slightly better than) the Department of Energy and Climate Change (Decc)'s Feed-in Tariffs policy proposal, which has over 200 pages of material.

- The Home Office's 16-page consultation on the Stalking Protection Order was transparent. The reasoning was clearly laid out and included discussion of the evidence of an ongoing problem that was not being addressed by existing measures and the potential of this further measure to address it. This achieved the same level of transparency as DH's Death Certification Reforms, which was over 100 pages.

DfE's Schools National Funding Formula, while scoring well on Diagnosis and Testing and Evaluation, contained so much material across four documents that scorers found it bewildering to work out what evidence had actually been used.

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[50] Welfare Reform and Work Bill: Impact Assessment for the benefit cap, July 2015, p11

A note on referencing practice

The Government Digital Service has a style guide. [51] The Regulatory Policy Committee guidance on impact assessments asks,

> *"Does the IA reference the source of data, research and evidence used and is the robustness of each of these clearly demonstrated?"* [52]

But a more substantial set of principles may be useful. There are some transparency-relevant points from the Committee on Publication Ethics: [53]

- *"2.6 Authors should represent the work of others accurately in citations and quotations."*

- *"[…] Authors should not copy references from other publications if they have not read the cited work."*

- *"4.3 Relevant previous work and publications, both by other researchers and the authors' own, should be properly acknowledged and referenced. The primary literature should be cited where possible."*

To this we would add the points above about being clear about what aspect of the policy document is being referenced to what aspect of the source.

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[51] https://www.gov.uk/guidance/style-guide/a-to-z-of-gov-uk-style (viewed 10 October 2016)

[52] https://www.gov.uk/government/publications/how-the-regulatory-policy-committee-scrutinises-impact-assessments/regulatory-policy-committee-recommendations-used-when-scrutinising-impact-assessments#produce-reliable-estimates-of-costs-and-benefits Item 6 (viewed 10 October 2016)

[53] Wager E & Kleinert S (2011) Responsible research publication: international standards for authors. A position statement developed at the 2nd World Conference on Research Integrity, Singapore, July 22-24, 2010. Chapter 50 in: Mayer T & Steneck N (eds) Promoting Research Integrity in a Global Environment. Imperial College Press / World Scientific Publishing, Singapore (pp 309-16). (ISBN 978-981-4340-97-7)

3.3 Absent or weak evidence

In the absence of evidence

Governments often have to act where the evidence base is weak or absent. They may not have the luxury of waiting for those gaps to be filled before they introduce proposals.

The most transparent policy documents were those that acknowledged this and explained how the department would fill the gap or evaluate the policy at a later point. The consultation on Reducing Disruption on Local 'A' Roads was clear about what the department (DfT) didn't know: [54]

> 7. We currently do not have evidence as to the number of works which are left in place but not worked during the weekend.

The department explained that it would use the consultation to fill in gaps in the evidence base: [55]

> 117.   Some contractors may be regarded as small firms. At present we do not have data to suggest how many or what proportion of contractors this represents. We ask for further evidence on this during the consultation.

Another example is MoJ's proposed Panel for Publicly Funded Criminal Advocacy. The consultation highlighted areas where quantitative evidence is limited: [56]

> 2.9   As Sir Bill Jeffrey noted in Chapter Two of his report (2014, p. 21), the quantitative evidence about advocacy quality is limited. The government is not suggesting that the apparent correlation between the changing constituents of the advocacy market and concerns about quality are causally linked.

The consultation document also acknowledged points where the evidence is largely anecdotal: [57]

> 4.3   In spite of these prohibitions, we are told by the Bar Council, other advocates, and the Law Society that referral fees are frequently paid and received. The evidence for this is, however, largely anecdotal. There is little quantitative evidence as to the scale of the problem due to a lack of reporting of such practices. Both advocates and litigators appear reluctant to report breaches given the obvious implications for their own reputations, and their future prospects of securing instruction.

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[54] Reducing Disruption on Local 'A' Roads (Impact Assessment), April 2016, p20, Annex A: Number of works in scope of the requirement

[55] Reducing Disruption on Local 'A' Roads (Impact Assessment), April 2016, p17

[56] Preserving and Enhancing the Quality of Criminal Advocacy, October 2015, p10

[57] Preserving and Enhancing the Quality of Criminal Advocacy, October 2015, p18

Weakness in the evidence base

The most transparent policy documents acknowledged weaknesses and discussed them. For example, Defra's Draft Air Quality Plans had an easily accessible summary of assumptions and associated uncertainties. This would score a 3: [58]

> **The modelling is based on the assumption that consumers are economically rational, that their utility from a vehicle is based on its economic cost and that vehicle owners always prefer newer vehicles. It is also assumed that consumers on average replace their vehicles every 4 years, and the introduction of CAZs is announced 4 years before implementation, therefore consumers will not experience any additional transaction costs.**
>
> In reality this may not be the case, as there are a number of motivations for owning particular vehicles besides economic (i.e. preference for a certain model, or particular vehicle). This may mean costs of upgrading may be greater than it is assumed that for such vehicle owners. The assumption also ignores the potential transaction cost impacts on consumers who replace their vehicles less frequently than every four years.

The same department's proposals for Statutory Post-Movement Testing of Cattle for TB also included a sensitivity analysis to capture uncertainties in the evidence base, in this case in the department's own modelling: [59]

11. Sensitivity analysis

11.1 Table 10 illustrates a possible 'worst' and 'best' case scenario, alongside the central case, using the above ranges to try and capture some of the uncertainty about the various parameters which could affect the costs and benefits of the policy.

Table 10 – Sensitivity checks on total costs and benefits of post-movement testing

Parameter / Scenario value	Worst	Best	Central
Purchasing behaviour (% switching)	0%	34%	17%
Level of TB infection pressure	-2.2%	+2.2%	0%
Cost of a BAU breakdown +/- 10%	-10%	+10%	£59k
Cost of breakdown by Post-MT +/- 10%	-10%	+10%	£34k
Cost of neighbouring herd controls	40%	0%	20%
Cost of switching (per animal) +/- 10%	£8	£6	£7

[58] Draft Evidence Annex Assessment of the plans to improve air quality in the UK, September 2015, pp24-25

[59] Options to increase the chance of achieving Officially TB Free (OTF) status for the TB Low Risk Area (Impact Assessment), August 2015, p15

DCMS' consultation on Age Verification for Pornographic Material Online was transparent about the lack of academic consensus it had encountered: [60]

> ## Prevalence - how many children view pornographic material?
>
> There is no clear consensus in the academic literature about the proportion of children viewing pornographic material or what type of content is seen. Children are more likely to
>
> report accidental rather than deliberate viewing of pornography[21], however there is considerable variation across studies.

DWP's policy Banning Member-Borne Commission in Workplace Pensions, to prevent employees paying commission fees for occupational pensions, was also transparent about uncertainties caused by the available evidence (as well as demonstrating how it had drawn on previous consultations to answer some points).

On the other hand, the Government Equalities Office's Gender Pay Gap proposals included a lot of assertions and statistics about pay gaps, but did not consider the weaknesses and contradictions in what it had included. Decc's Contracts for Difference for Carbon Capture and Storage had a similar issue. This kind of omission was common and a reason why some transparent policies did not score a 3. For the most part, departments only referred to gaps in knowledge in relation to consultation questions or explaining missing information in an impact assessment. The strengths and weaknesses of the evidence base were rarely discussed.

| [60] Child Safety Online: Age Verification for Pornography, February 2016, pp13-14

3.4 Values-based policies

Governments sometimes introduce policies that are predominantly expressions of values — rather than justified just by their intended outcomes and effectiveness. In those cases there may be less of a role for evidence.

Policies were considered to achieve a basic level of transparency if they were clear about their rationale being values-based rather than evidence-based and if they supported any testable claims about the situation they were addressing. They were considered to be fully transparent if they also discussed the evidence and explained the limits of its role in developing the policy.

Values-based policies

There were in fact very few policies that were not based on some testable claims or assumptions. (See Appendix 5 for examples of testable statements versus value statements.) The only example we assessed to be purely values-based was, surprisingly, the Treasury's consultation on Reforms to the Taxation of Non-Domiciles. The first statement, which is testable, was disregarded as this was not the stated goal of the policy. It was clear that the changes were being proposed on the principle of fairness: [61]

> The government wants to attract talented individuals to live in the UK who will help to contribute to the success of this country by investing here and creating jobs. The long-standing tax rules for individuals who are not domiciled in the UK are an important feature of our internationally competitive tax system, and the government remains committed to that aim. However, it is only right that those people who choose to live in the UK for a very long time pay a fair share of tax, and those who are born in the UK with a UK domicile of origin cannot move abroad and return as a 'non-dom'.

The Department for Communities and Local Government (DCLG)'s Updating the Local Government Transparency Code scored mainly 2s and some 1s because it was clear about the values basis of its rationale — that the government believes transparency is the bedrock of accountability — but also made claims about the use and function of the data that it did not provide any references for.

Acknowledging different influences also helps the public to follow the chain of reasoning behind the policy and to see how evidence has been weighed alongside other pressures. DfT's consultation and impact assessment for Changes to the Fixed Penalty Notice and Penalty Points for the Use of a Hand-Held Phone Whilst Driving acknowledged how growing pressure from the media and public opinion had fed into the decision: [62]

> 1.22 There has been growing media pressure to increase the penalty due to a number of recorded fatalities. In 2013 the Commissioner of the Metropolitan Police, Sir Bernard Hogan-Howe, proposed doubling the penalty points. A YouGov poll conducted in 2014 for the Sunday Times showed that 73% of drivers are in favour of the move [14].

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[61] Reforms to the taxation of non-domiciles, September 2015, section 0.1 Foreword

[62] A consultation on changes to the Fixed Penalty Notice and penalty points for the use of a hand-held mobile phone whilst driving: Moving Britain Ahead, August 2015, p8

Manifesto and political commitments

Many policies are introduced as a result of election promises in manifestos — and there is a public expectation that governments deliver on these commitments. [63] Officials often raised this with us as a limitation on transparency about the use of evidence, suggesting there should be different evidence standards for policies that come out of electoral competition to those which are developed inside government. However, we found that policies that had originated in manifestos featured among the best and the worst for transparency. What did matter was whether the commitment focused on the *means* — a commitment to do something, where the evidence base was often not transparent; or the *ends* — the outcome the policy was intended to achieve, which left space for evidence to be considered about the best way to do that.

DWP's Youth Obligation and DH's 7-Day NHS arose from means-focused manifesto commitments and gave limited information about the source of the policy. DfE's proposal for implementing the English Baccalaureate was based on a specific manifesto commitment to "require secondary school pupils to take GCSEs in English, maths, science, a language and history or geography". [64] Unlike the others, it had a reasonably transparent and well-cited exploration of the problem it was trying to address, but less transparency on why this was the best way of addressing the problem and its costs and benefits.

BIS' proposal for Ballot Thresholds [for strike action] in Important Public Services had to work with a very specific 2015 manifesto commitment: "Industrial action in these essential services would require the support of at least 40 per cent of all those entitled to take part in strike ballots". [65] The scorers felt that the consultation was unclear why the 40% threshold had been used rather than any other number.

Specific manifesto commitments to the means of achieving outcomes may hinder the government's subsequent ability to consider evidence on alternative proposals. In contrast, the DfT's proposal for Changes to the Fixed Penalty Notice and Penalty Points for the Use of a Hand-Held Phone Whilst Driving was linked to an open-ended commitment: "...reduce the number of cyclists and other road users killed and injured on our roads every year". [66] The evidence in this was clearly cited and discussed. The Cabinet Office's English Language Requirements for Public Sector Workers was based on an outcomes-oriented manifesto commitment to "legislate to ensure that every public sector worker operating in a customer-facing role must speak fluent English". [67] While it produced mixed scores for transparency, it did well on an open discussion about alternative options to achieve this.

More implementation-focused commitments that were still broad and not tied to specific measures also scored quite well. BIS' proposal for a Small Business Commissioner came from a broad manifesto commitment to establish "a new small business conciliation service to mediate in disputes, especially over late payment". [68] It had a transparent diagnosis of the problem, with references to the surveys and research about the disadvantages small businesses face. DCMS' proposal for Age Verification for Pornographic Material Online was clear about elements of the policy yet to be decided on, for instance a civil versus criminal enforcement regime (the government's preferred option), and acknowledged uncertainties in the evidence base, which is a marker of transparency.

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[63] *Trust in government is growing - but it needs to deliver,* Institute for Government (19th September 2016), http://www.instituteforgovernment.org.uk/sites/default/files/publications/IfG_polling_note_WEB3.pdf

[64] 2015 Conservative Party Manifesto, https://s3-eu-west-1.amazonaws.com/manifesto2015/ConservativeManifesto2015.pdf, p36

[65] Ibid p21

[66] Ibid p17

[67] Ibid p51

[68] Ibid p22

Budget announcements

Some of the policies reviewed had been announced by the Treasury at a budget or spending review, and then 'handed down' to other departments for further development. We found that proposals that originated in the Budget or Autumn Statement were particularly non-transparent about the evidence base used. We are not the first to find this: the Social Security Advisory Committee's chairman Paul Gray recently complained about the quality of welfare measures presented to his committee originating in the Budget: "secondary legislation [is] being presented to us without meaningful analysis of impact or interactions with other parts of the benefit system". [69]

For this assessment, when a budget announced a consultation, we sought out those documents to assess instead of just relying on the material produced at the time of the announcement; where the government had moved straight to action without any intervening stages, we looked at the budget or spending announcement. [70]

The Youth Obligation was a manifesto commitment brought forward by the Summer Budget 2015:[71]

> **Employment support**
>
> **1.157** The government is committed to achieving full employment: it has already set out its ambition for the UK to have the highest employment rate in the G7 and will introduce a statutory duty on the government to report progress against this ambition. Achieving full employment means backing business, reforming welfare and rewarding work. But it also means ensuring that all groups in society are given the support they need to find and keep a job.
>
> **1.158** To help young people move into and get on in work, **the Budget will introduce a new Youth Obligation for 18 to 21 year olds on Universal Credit**. From April 2017, young people will participate in an intensive regime of support from day 1 of their benefit claim, and after 6 months they will be expected to apply for an apprenticeship or traineeship, gain work-based skills, or go on a mandatory work placement to give them the skills they need to move into sustainable employment.

There was an outline of changes to spending on p74. This was the extent of the government's proposal at this stage. Scorers found no reference to any kind of evidence about the problems that the Youth Obligation sought to tackle, such as how many young people are out of work, why the proposal was chosen and how it could be delivered.

DCMS' consultation on Business Rates Relief for Local Newspapers, which originated from a manifesto commitment and Budget announcement, did not indicate what evidence had been used to conclude the current system is not working for local newspapers and gave little indication of how costs were assessed.

There appears to be a systemic problem associated with policies announced in Budgets, which needs to be addressed. One particular feature, which could explain this, is the way in which Budget proposals are developed — with the Treasury acting as the policy promoter who then hands a policy on to a department to implement. The fact that many Budget measures are developed in secret, and the Treasury does not play its normal role as policy challenger may explain (but not excuse) why there are so many transparency issues around Budget announcements. [72]

One way to address this might be to ensure that all Budget announcements are followed by a further pre-implementation policy proposal. We noted that where consultations had followed spending announcements (whether from the Budget or indeed a spending review), transparency was better. Decc's consultation on the Exemption from the Costs of the Renewables Obligation and Feed-in Tariff, which was announced in the 2015 Spending Review, was transparent. The Cap on Early Exit Charges for Members of Occupational Pension Schemes, announced by the Treasury but set out in detail by DWP clearly modelled costs and benefits, explained what was yet to be decided and acknowledged contradictory information about that.

[69] Social Security Advisory Committee Annual Report 2015-16, p5

[70] We initially included the Treasury's Soft Drink Levy announcement, but this included plans for a consultation, which fell outside our time frame.

[71] Summer Budget 2015, HM Treasury, July 2015, p41

[72] This issue is raised in the Institute for Government's findings on taxation policy: *Improving tax policy making: Emerging findings - an invitation to comment*; Institute for Government, the Chartered Institute of Taxation and the Institute for Fiscal Studies; http://www.instituteforgovernment.org.uk/sites/default/files/publications/Post-roundtable%20paper%20FINAL%20FINAL.pdf

NEXT STEPS

Through this 2016 assessment, we have established a process for collating policies, selecting a sample and conducting the review. We have also been able to identify more specifically the features of transparency about the use of evidence in policymaking. We hope that by discussing the plans with departments over the past six months and continuing to discuss the features and findings, it will be possible for them to address many of the issues and to self-monitor their standard of transparency in advance of next year's ranked assessment.

In July 2017, we will assess just over a year of policy proposals, starting from the date the new administration was formed to the start of recess. The resulting ranked table of departmental scores will be presented under the four headings of the transparency framework: Diagnosis, Proposal, Implementation, and Testing and Evaluation. We expect that the presentation of this will be:

a.   A ranked table of departments showing average scores for each of the four headings of the framework.

b.   Department by department tables showing how each of the policies in their sample contributed to the average score.

c.   A commentary on findings.

There are several assessment methods issues that we want to resolve. For this we will convene a methods review group to help us determine the final methodology. In the spirit of consultation and engagement that has informed this project, this will include analysts and policy professionals in our discussions. The issues we want to consider further are:

- A more efficient process for gathering policy proposals.
- How best to cover the breadth of departmental work.
- The required framework adaptation notes for scoring different kinds of documents.
- How best to represent the departmental scores through sums and averages.
- How to score values-based policies.
- Whether we should make any further revisions to the framework (see Appendix 2 and Appendix 3)

We are also keen to have feedback on the issues we have identified in this report.

Timetable

December 2016	Methods review
March 2017	Discussion of 2016 findings with policy professionals and analysts
July 2017	Finalise list of all policies
	Sample selections notified to departments
September 2017	Assessment
November 2017	Publication of ranked departmental transparency scores

ACKNOWLEDGEMENTS

APPENDIX 1: EVALUATING TRANSPARENCY OF EVIDENCE

Step 1: defining a policy

We defined this as a specific intervention, aiming for what is intuitive for the public and the usual way that policies are presented in announcements and for decision. For instance changes to the driving test to reduce accidents would be considered a single policy proposal; each new test question would not be.

A number of decisions early on further shaped which measures we looked at and what defined a policy. Administrative measures (such as changing the way departmental statistics are published) were largely excluded as not substantial enough to qualify as policies. Individual spending decisions and money committed to pre-existing programmes were also mostly excluded as deriving from policy announcements made outside our timeframe.

Step 2: finding policies

Our initial plan was to select those proposals which fit the departmental priorities, as set out in the single departmental plans. But as the Institute for Government found in its analyses of these, they mostly comprised of unspecific indications of the direction of action.[73] The National Audit Office also identified that single departmental plans did not "provide the degree of Parliamentary accountability that was promised, nor represent good practice in transparency."[74] The first attempt at gathering a list of policies came from downloading the 'announcements' section of gov.uk — using August and November 2015 as a starting point. We found this to be an imperfect way of gathering policies, and opted for an additive approach, manually gathering all policies proposed by government between May 2015 and May 2016.

Gov.uk was the main platform for this process, but in practice it is not an effective system for the public to engage in policymaking. It is more suited to interaction with public services. There is no comprehensive list of the government's policies for people to find. Gov.uk's 'policies' section is a collection of press releases, policy papers, speeches, guidance and other documents under very broad headlines.

The homepages of individual departments were of little use, since they all use the gov.uk master list for the policies section of their pages. The closest to an example of good practice is the Treasury's page, which has a link to the main documents where its policies are announced in the top-right corner of the page (see below).[75] But even here the problems we have outlined remained:
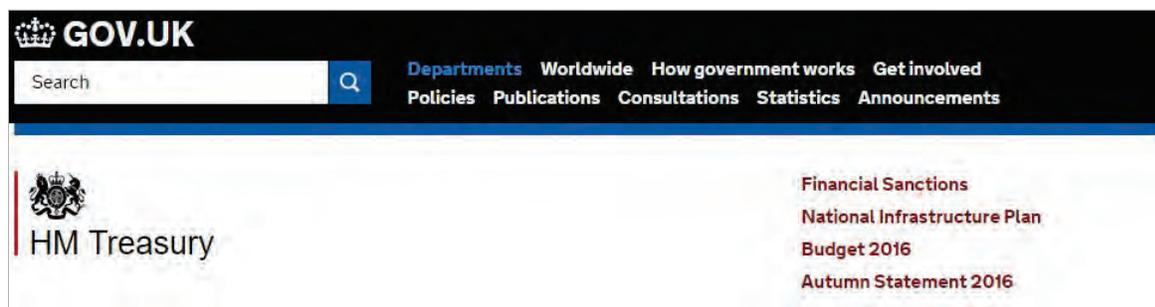
[73] Response to Single Departmental Plans, Institute for Government, 19th February 2016 http://www.instituteforgovernment.org.uk/news/latest/response-single-departmental-plans

[74] Government's management of its performance: progress with single departmental plans, National Audit Office, July 2016, https://www.nao.org.uk/wp-content/uploads/2016/07/Governments-management-of-its-performance.pdf

[75] https://www.gov.uk/government/organisations/hm-treasury

It was very difficult to find the government's specific interventions in this format. We therefore had to source them from various public documents for the purposes of the additive list. Places where we could find policies or clues about their existence included:

- Consultations
- Government bills
- White papers
- Budget and spending review announcements
- Impact assessments
- Announcements on gov.uk and press releases
- Conservative Party Manifesto 2015
- Single departmental plans

There are some cases where it was difficult to identify the appropriate document to score. One case is the Ministry of Justice (MoJ)'s policy, Changes to the Definition of "Sampler" for DNA Testing in Private Family Law Cases. The original consultation was sent to accredited laboratories, since it was considered only relevant to them. It was not published online. The consultation response, which detailed the background to the policy, responses to the consultation, and next steps, was put in the public domain: on MoJ's Consultation Hub. Whilst in most cases we looked at the original consultation document, here we had to look at the response. In this case, the propositions are clearly sourced and the government's use of the evidence was mostly well explained.

Step 3: scope

We chose to look at 13 domestic departments: the Cabinet Office; Business, Innovation and Skills; Communities and Local Government; Education; Culture, Media and Sport; Environment, Food and Rural Affairs; Transport; Work and Pensions; Health; Energy and Climate Change; HM Treasury; Ministry of Justice; and the Home Office.[76]

There were certain organisations and institutions that we excluded from our analysis:

- Due to the nature of their work, it was nearly impossible to get a selection of 'policies' as we had defined them for the Foreign Office and the Ministry of Defence (MoD). There were next to no applicable consultations and impact assessments associated with them, and the relevant policy documents (such as the National Security Strategy and Strategic Defence and Security Review) were too broad. The Department for International Development (DfID) was also considered, but excluded. In the absence of the Bilateral and Multilateral Aid reviews, which had not been published at the time we were creating the master list, we could not find anything that qualified as a DfID policy. Most of its activities were project-based. We note DfID has been using our draft framework since its publication in October 2015 to reflect on the information contained in its aid reviews.

- For this first stage we were looking at policies from Whitehall departments. We did not gather policies from the Welsh, Scottish or Northern Irish governments. We are keen to expand the use of the framework and the evidence transparency agenda in the future. We have presented it at several meetings and also at a meeting of the new Regulatory Scrutiny Board of the European Commission, which plans to adopt aspects of it.

- We removed policies implemented by executive agencies such as the Environment Agency. This was due to both time constraints and the fact these bodies are mostly implementing policies set by central departments.

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[76] The time frame we looked at came before the changes to the machinery of government (such as the merger of Decc and BIS into the Department of Business, Energy and Industrial Strategy) made in July 2016

The stage we looked at was when a policy was first proposed by the government. The documents were the first substantive ones to outline the government's proposals. The only cases when we looked at a first announcement (such as a budget announcement or press release) was when the government had moved straight from that to implementation. In some cases, a budget or spending review would commit a department to holding a consultation or review. For example, the 2015 Spending Review and Autumn Statement made this commitment regarding the New Homes Bonus:[77]

> the government will also consult on reforms to the New Homes Bonus, including means of sharpening the incentive to reward communities for additional homes and reducing the length of payments from 6 years to 4 years. This will include a preferred option for savings of at least £800 million, which can be used for social care. Details of both reforms will be set out as part of the local government finance settlement consultation, which will include consideration of proposals to introduce a floor to ensure that no authority loses out disproportionately

In cases like this, we scored the consultation that was mentioned. We excluded calls for evidence from our assessment.

We discovered a small number of policies following assessment that should have been excluded. These did not provide a proposal or preferred option from the government:

Pre-policies

There were a few cases where proposals looked like policies but were not. Their introductions may have presented a developed consideration of the issues or subject but their primary purpose was to marshal information in one place or find out what was going on. These were the Department for Business, Innovation and Skills (BIS)' Creating UK Research and Innovation, which announced that the government is committing to the results of a review; the Department for Education (DfE)'s Regional Adoption Agencies Programme; the Cabinet Office's Anti-Corruption Innovation Hub; the Department for Communities and Local Government (DCLG)'s Banning and Blacklisting Rogue Landlords; and the Department for Culture, Media and Sport (DCMS)' Broadband Universal Service Obligation.

Carrying out (court) orders

In July 2015 the MoJ issued an impact assessment and explanatory memorandum to Amend the Civil Legal Aid Merits Criteria. This change was to comply with a High Court ruling, to avoid a risk of being unlawful while the government appealed it. It was not a preferred solution to an identified problem. The policy scored well for transparency – it was very clear what the government was proposing to do and why. Future assessments will identify situations like this and test them simply for a clear explanation rather than against the full transparency framework.

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[77] Spending review and autumn statement 2015, updated November 2015, Section 8.2 English devolution, Local government reform https://www.gov.uk/government/publications/spending-review-and-autumn-statement-2015-documents/spending-review-and-autumn-statement-2015

Step 4: assessment

We ended up with a list of 593 interventions for the year to May 2016. There are measures we included which on reflection may not qualify as policies, and some which may overlap. But it still represents the vast majority of what the government introduced in our time frame and gives a strong indication of which departments produce the most policy. The number of policies for each department was influenced by the absence of major policy documents that had been announced, but were yet to come out. For instance, the Department for Environment, Food and Rural Affairs (Defra)'s flagship 25-year plan for the environment and the Life Chances Strategy were yet to be published.

In May 2016, we held a workshop at the Institute for Government with 21 volunteers from a variety of policy backgrounds, from the civil service fast stream, to academia, to charities. The participants were split into groups and given a policy document. They applied the framework to the document and scored it. As a result of these discussions, we made two notable changes to the framework (the revised version can be found in Appendix 2):

- The Value for Money section was merged with Implementation and Proposal
- A question about further plans for consultation was added to account
  for the fact we are looking at early-stage documents

There was a lot of discussion about what should be done when a department says that there is no evidence.

We began the process intending to produce a full ranking of departments. The changes to the machinery of government in July 2016 complicated this task. We also wanted to take time to engage with departments further on some of the methodological questions raised on producing a full ranking. We therefore took the decision to produce this good and bad practice commentary this year, and a full ranking in September 2017.

From our list of policies, we selected eight discrete interventions per department based on the government's own documents about its priorities and ranging, as far as possible, across their policy portfolios. This often meant policies that were manifesto commitments or were mentioned in the department's Single Departmental Plan. For example, we selected policies for DfE ranging across the subject areas of schools, social work and the functions of the Government Equalities Office. We also took public interest into account (when deciding between a narrow administrative measure or one that would have more public significance) and sought to ensure a similar profile of policy documents for each.

Following feedback from departments on the range of policy areas and the documents we had selected, we narrowed our list down to six policies. In a number of cases, we changed the documents we looked at and amended the sample based on our correspondence. We benefited from engagement with every department involved in this exercise to some degree. We spent some time clarifying that our focus is on evidence *transparency* as opposed to the *quality* of evidence or the merits of the policy.

A group of scorers used the modified framework to score and comment on this sample. During the scoring process we recognised that some sections of the framework, particularly Testing and Evaluation, may not be relevant for very early-stage documents. For this reason, we gave scorers the option of awarding these sections a "Not Applicable" rating and subsequently are developing the questions about use of consultation material and transparency about next steps.

The insights and scores that we collected from this process, subject to review, formed the basis of this report and the compendium of good practice.

APPENDIX 2:
THE REVISED TRANSPARENCY FRAMEWORK, JULY 2016

Diagnosis This concerns why something is proposed, ie what the issue is that will be addressed. The document should explain: • what policymakers know about the issue, its causes, effects, and scale • how policymakers have assessed the strengths and weaknesses of that evidence.	**LEVEL:** **So, can you see what evidence has been used and the role it has played?**	0 Not sufficiently for level 1.	1 Evidence is mentioned, with some explanation of how it has been used.	2 As in level 1 and the supporting evidence is mostly linked to the relevant parts of the policy, properly cited and findable, and there is discussion of how it has been used.	3 Supporting evidence is consistently linked to the relevant parts of the policy, properly cited and findable, and there is assessment of uncertainties and contradictions in the evidence base.	Worked Example The government has assessed the extent of problem drinking in the UK: the economic and human cost
Proposal What is the government's chosen intervention? The document should explain: • why the government has chosen this intervention • what evidence, if any, that choice is based on • how policymakers have assessed the strengths and weaknesses of the evidence base, including what has been tried before and whether that worked or not • whether there are other options and why they have not been chosen • what the government plans to do about any part of the intervention that has not yet been decided upon. • what the costs and benefits are estimated to be and the assumptions behind those calculations.	**LEVEL:** **So, can you see what evidence has been used and the role it has played?**	0 Not sufficiently for level 1.	1 Evidence is mentioned, with some explanation of how it has been used.	2 As in level 1 and the supporting evidence is mostly linked to the relevant parts of the policy, properly cited and findable, and there is discussion of how it has been used.	3 Supporting evidence is consistently linked to the relevant parts of the policy, properly cited and findable, and there is assessment of uncertainties and contradictions in the evidence base.	Worked Example The government has chosen to implement minimum unit pricing for alcohol, instead of, for example, increasing alcohol taxes or starting a new educational campaign.

	LEVEL:	0	1	2	3	Worked Example
Implementation How will the chosen intervention be introduced and run? The document should explain: • why this method for delivering the intervention has been chosen • what evidence, if any, that decision is based on • whether there are other methods and if so the reasons for not choosing them • if the way to deliver the intervention is still being decided, what the method is for deciding • what the costs and benefits are estimated to be and the assumptions behind those calculations	**So, can you see what evidence has been used and the role it has played?**	Not sufficiently for level 1.	Evidence is mentioned, with some explanation of how it has been used.	As in level 1 and the supporting evidence is mostly linked to the relevant parts of the policy, properly cited and findable, and there is discussion of how it has been used.	Supporting evidence is consistently linked to the relevant parts of the policy, properly cited and findable, and there is assessment of uncertainties and contradictions in the evidence base.	The government has decided to implement minimum unit pricing through a voluntary agreement with major retailers rather than through legislation.

	LEVEL:	0	1	2	3	Worked Example
Testing and evaluation How will we know if the policy has worked? The document should explain: • any testing that has been or will be done • plans to measure the impact of the policy and the outcomes that will be measured • plans to evaluate the effects of the policy, including a timetable • plans for using further inputs	**So, can you see what evidence has been used and the role it has played?**	Not sufficiently for level 1.	Some indication of success measures but no plans for testing/evaluation (or explanation of why inappropriate).	More comprehensive success measures (or process for developing them outlined). Also provides details about use of testing and plans for evaluation or explains why testing or evaluation would not be appropriate.	As in level 2 but explains the reasons for the use of testing and plans for evaluation. It is also clear what will happen to the results of testing and evaluation, including timing and plans for publication.	The government sets out how it plans to measure the results of the policy. The government sets out plans for piloting, initial evaluation of those results and timetable for publication and then describes decision process around roll-out if the evaluation is satisfactory.

APPENDIX 3:
THE ORIGINAL FRAMEWORK

	LEVEL:	0	1	2	3	Worked Example
Diagnosis This concerns why something is proposed, ie what the issue is that will be addressed. The document should explain: • what policymakers know about the issue, its causes, effects, and scale • how policymakers have assessed the strengths and weaknesses of that evidence	**So, can you see what evidence has been used and the role it has played?**	Not clearly enough for level 1	Evidence is mentioned, with some explanation of how it has been used.	As in level 1 but the supporting evidence is linked to the relevant parts of the policy, properly cited and you could find the source.	As in level 2 but the evidence base is also assessed and uncertainties and contradictory information are acknowledged.	The government has assessed the extent of problem drinking in the UK: the economic and human cost.

	LEVEL:	0	1	2	3	Worked Example
Proposal What is the government's chosen intervention? The document should explain: • why the government has chosen this intervention • what evidence, if any, that choice is based on • how policymakers have assessed the strengths and weaknesses of the evidence base, including what has been tried before and whether that worked or not • whether there are other options and why they have not been chosen • what the government plans to do about any part of the intervention that has not yet been decided upon	**So, can you see what evidence has been used and the role it has played?**	Not clearly enough for level 1	Evidence is mentioned, with some explanation of how it has been used.	As in level 1 but the supporting evidence is linked to relevant parts of the policy, properly cited and you could find the source.	As in level 2 but the evidence base is also assessed and uncertainties and contradictory information are acknowledged.	The government has chosen to implement minimum unit pricing for alcohol, instead of, for example, increasing alcohol taxes or starting a new educational campaign.

Implementation	LEVEL:	0	1	2	3	Worked Example
How will the chosen intervention be rolled out? The document should explain: • why this method for delivering the intervention has been chosen • what evidence, if any, that decision is based on • whether there are other methods and if so the reasons for not choosing them • if the way to deliver the intervention is still being	**So, can you see what evidence has been used and the role it has played?**	Not clearly enough for level 1	Evidence is mentioned, with some explanation of how it has been used.	As in level 1 but the evidence is linked to relevant parts of the policy, properly cited and you could find the source.	As in level 2 but the evidence base is also assessed and uncertainties and contradictory information are acknowledged.	The government has decided to implement minimum unit pricing through a voluntary agreement with major retailers rather than through legislation.

Value for money	LEVEL:	0	1	2	3	Worked Example
This considers the costs and benefits of the policy to show why the government thinks it is worth doing. The document should explain: • what the costs and benefits are estimated to be • the assumptions behind those calculations • what evidence is being used to make those assumptions • the uncertainties about the costs and benefits and how likely the figures are to change	**So, can you see what evidence has been used and the role it has played?**	Not clearly enough for level 1	The assumptions (the basis) for conclusions about risks and benefits are described.	As in level 1 but supporting evidence is also properly cited and you could find the source.	As in level 2 but it is also clear how the uncertainties in these assumptions have been considered.	The assessment shows the potential of the proposal to reduce problem drinking, but also the impacts on business (eg supermarkets, pubs), the public sector (eg police, NHS), and to the public of raising prices.

	LEVEL:	0	1	2	3	Worked Example
Testing and evaluation How we will know if the policy has worked? The document should explain: • plans to measure the impact of the policy and the outcomes that will be measured • plans to test the policy first, or reasons why not • plans to evaluate the effects of the policy including a timetable	**So, can you see what evidence has been used and the role it has played?**	Not clearly enough for level 1	Some indication of success measures but no plans for testing/evaluation (or explanation of why inappropriate)	More comprehensive success measures (or process for developing them outlined). Also provides details about use of testing and plans for evaluation or explains why testing or evaluation would not be appropriate.	As in level 2 but explains the reasons for the use of testing and plans for evaluation. It is also clear what will happen to the results of testing and evaluation, including timing and plans for publication.	The government sets out how it plans to measure the results of the policy. The government sets out plans for piloting, initial evaluation of those results and timetable for publication and then describes decision process around roll-out if the evaluation is satisfactory.

APPENDIX 4: POLICY DOCUMENTS REVIEWED

This appendix contains all the policy documents we reviewed, listed by department. Documents were published by the corresponding department unless otherwise stated.

Cabinet Office

Anti-Corruption Innovation Hub.

UK Open Government National Action Plan 2016-18 [policy paper] (12th May 2016), https://www.gov.uk/government/publications/uk-open-government-national-action-plan-2016-18/uk-open-government-national-action-plan-2016-18 (last accessed 11th November 2016).

Anti-Lobbying Clause in Government Grant Agreements.

Government announces new clause to be inserted into grant agreements [press release] (6th February 2016), https://www.gov.uk/government/news/government-announces-new-clause-to-be-inserted-into-grant-agreements (last accessed 11th November 2016).

English Language Requirements for Public Sector Workers.

Consultation report on draft language requirements for public sector workers Code of Practice [consultation report] (February 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/501754/Consultation_report_on_draft_language_requirements_for_public_sector_workers_Code_of_Practice.pdf;

English Language Requirement for Public Sector Workers [impact assessment] (28th August 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/467493/Impact_Assessment_-_English_Fluency_in_Public_Sector_Workers_-__for_publicaiton.pdf;

Draft Code of practice on the English language requirement for public sector workers - Part 7 of the Immigration Act [2016], Version 1.0 (October 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/467731/Draft_Code_of_Practice_on_the_English_Language_Requirement_for_Public_Sector_Workers_.pdf (all last accessed 11th November 2016).

Establishing Common Measures of Socio-Economic Background.

Engagement Document: Developing a Common set of Measures for Employers on the Socio-Economic Backgrounds of their Workforce and Applicants (May 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/525928/6_2224_co_engagement_document_employer_measures_on_socio_economic_background.pdf (last accessed 11th November 2016).

Introduction of New Powers for Bodies to Disclose Identified Data for the Purpose of Improving Public Service Delivery.

Better Use of Data in Government: Consultation Paper (February 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/503905/29-02-16_Data_Legislation_Proposals_-_Con_Doc_-_final__3_.pdf;

Introduction of new powers for bodies to disclose identified data for the purpose of improving public service delivery [impact assessment], https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/504018/Consultation_Stage_Impact_Assessment_for_Public_Service_Delivery_power.pdf (both last accessed 11th November 2016).

New Powers for Bodies to Disclose Identified Data for the Purpose of Taking Action in Connection with Debt Owed to a Specified Public Authority.

Better Use of Data in Government: Consultation Paper (February 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/503905/29-02-16_Data_Legislation_Proposals_-_Con_Doc_-_final__3_.pdf;

Introduction of new powers for bodies to disclose identified data for the purpose of taking action in connection with debt owed to a specified public authority [impact assessment] (1st February 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/504023/Consultation_Stage_Impact_Assessment_for_Debt_power.pdf (both last accessed 11th November 2016).

Department for Business, Innovation and Skills

Apprenticeships Levy.

Apprenticeships Levy: Employer owned apprenticeships training [consultation] (August 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/455101/bis-15-477-apprenticeships-levy-consultation.pdf (last accessed 11th November 2016).

Ballot Thresholds [for strike action] in Important Public Services.

Trade Union Reform: Consultation on ballot thresholds in important public services (July 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/445433/BIS-15-418-consultation-on-ballot-thresholds-in-important-public-services.pdf;

Ballot Thresholds in Important Public Services: Consultation Impact Assessment (July 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/445514/BIS-15-418-IA-40_-threshold.pdf (both last accessed 11th November 2016).

Creating UK Research and Innovation.

Success as a Knowledge Economy: Teaching Excellence, Social Mobility and Student Choice [white paper] (May 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/523546/bis-16-265-success-as-a-knowledge-economy-web.pdf (last accessed 11th November 2016).

Moving the Operations of the Land Registry into the Private Sector.

Consultation on moving Land Registry operations to the private sector (24th March 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/510987/BIS-16-165-consultation-on-moving-land-registry-operations-to-the-private-sector.pdf (last accessed 11th November 2016).

National Living Wage.

Summer Budget 2015, HM Treasury (July 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/443232/50325_Summer_Budget_15_Web_Accessible.pdf;

Summer Budget 2015 data sources, HM Treasury (July 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/443273/Data_sources_-_Summer_Budget_2015.pdf (both last accessed 11th November 2016).

Small Business Commissioner.

Enterprise Bill: A Small Business Commissioner [consultation] (26th July 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/450695/BIS-15-438-a-small-business-commissioner.pdf (last accessed 11th November 2016).

Department for Communities and Local Government (DCLG)

Banning and Blacklisting Rogue Landlords.

Tackling rogue landlords and improving the private rental sector: A technical discussion paper [consultation] (August 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/450862/Discussion_paper_FINAL.pdf (last accessed 11th November 2016).

Broadening the Definition of Affordable Housing.

Consultation on proposed changes to national planning policy (December 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/488276/151207_Consultation_document.pdf;

Consultation on proposed changes to national planning policy Equalities Statement (December 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/482890/Equalities_statement_NPPF_fin.pdf (both last accessed 11th November 2016).

Promoting Supply of Starter Homes.

Housing and Planning Bill 2015/16: Impact Assessment (13th October 2015), http://www.parliament.uk/documents/impact-assessments/IA15-010.pdf;

Housing and Planning Bill 2015/16: Explanatory Notes (13th October 2015), http://www.publications.parliament.uk/pa/bills/cbill/2015-2016/0075/en/16075en.pdf (both last accessed 11th November 2016).

Reforms to the New Homes Bonus.

New Homes Bonus: Sharpening the Incentive - Technical Consultation (December 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/487095/151217_-_nhb_draft_condoc_published_version.pdf (last accessed 11th November 2016).

Right to Buy for Housing Association Tenants.

Housing and Planning Bill 2015/16: Impact Assessment (13th October 2015), http://www.parliament.uk/documents/impact-assessments/IA15-010.pdf;

Housing and Planning Bill 2015/16: Explanatory Notes (13th October 2015), http://www.publications.parliament.uk/pa/bills/cbill/2015-2016/0075/en/16075en.pdf (both last accessed 11th November 2016).

Updating the Local Government Transparency Code.

Strengthening Local Government Transparency: Consultation on changes to the Local Government Transparency Code 2015 (May 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/522767/Strengthening_the_local_government_transparency_code_consultation.pdf (last accessed 11th November 2016).

Department for Culture, Media and Sport (DCMS)

Age Verification for Pornographic Material Online.

Child Safety Online: Age Verification for Pornography [consultation] (February 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/541366/AV_ConsultationDCMS_20160216_Final__4_.pdf;

Identifying the Routes by which Children View Pornography Online: Implications for Future Policy-makers Seeking to Limit Viewing — Report of Expert Panel for DCMS (12th November 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/500701/Report_of_DCMS_Expert_Panel__Autumn_2015__FINAL_.pdf;

Regulatory Triage Assessment: Age Verification for pornographic material online (27th January 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/500700/RTA_DCMS_AV_20160201.pdf (all last accessed 11th November 2016).

Broadband Universal Service Obligation.

A New Broadband Universal Service Obligation Consultation (23rd March 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/510148/Broadband_Universal_Service_Obligation.pdf (last accessed 11th November 2016).

Cultural Protection Fund.

Cultural Protection Fund: Government Proposals to Protect Cultural Heritage Overseas [consultation] (January 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/525149/Cultural_protection_fund_consultation__2_.pdf (last accessed 11th November 2016).

Requiring Direct Marketing Callers to Provide Calling Line Identification.

Requiring direct marketing callers to provide Calling Line Identification [consultation] (January 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/491199/CLI_consultation_version__PDF_.pdf (last accessed 11th November 2016).

Sports Governance Code.

Sporting Future: A New Strategy for an Active Nation, Cabinet Office (December 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/486622/Sporting_Future_ACCESSIBLE.pdf (last accessed 11th November 2016).

Unitary Board for the BBC.

A BBC for the future: a broadcaster of distinction [white paper] (May 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/524863/DCMS_A_BBC_for_the_future_linked_rev1.pdf (last accessed 11th November 2016).

DCMS and DCLG

Business Rates Relief for Local Newspapers.

The case for a Business Rates Relief for local newspapers: Consultation, DCMS and DCLG (8th July 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/442791/Final_consultation_document_-_business_rates_relief_-_7_July_for_publication.pdf (last accessed 11th November 2016).

Department for Education

English Baccalaureate.

Consultation on implementing the English Baccalaureate (3rd November 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/473455/Consultation_on_implementing_the_English_Baccalaureate.pdf (last accessed 11th November 2016).

Full Academisation of the School System.

Educational Excellence Everywhere [white paper] (March 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/508447/Educational_Excellence_Everywhere.pdf;

Educational Excellence Everywhere: Assessment of Impact (March 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/508427/Educational_excellence_everywhere_-_Impact_Assessment.pdf (both last accessed 11th November 2016).

Gender Pay Gap. (Government Equalities Office)

Closing the Gender Pay Gap: Government Consultation, DfE and Government Equalities Office (14th July 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/450878/Gender_Pay_Gap_Consultation.pdf;

s78 Impact Assessment, Government Equalities Office (23rd July 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/476592/S.78_Impact_Assessment_GREEN.docx (both last accessed 11th November 2016).

National Teaching Service.

Educational Excellence Everywhere [white paper] (March 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/508447/Educational_Excellence_Everywhere.pdf;

Educational Excellence Everywhere: Assessment of Impact (March 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/508427/Educational_excellence_everywhere_-_Impact_Assessment.pdf (both last accessed 11th November 2016).

New Social Work Regulator.

Children's social care reform: A vision for change [policy paper] (January 2016), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/491968/Childrens_social_care_reform_a_vision_for_change.pdf (last accessed 11th November 2016).

Regional Adoption Agencies Programme.

Regionalising adoption [policy paper] (June 2015), https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/437128/Regionalising_adoption.pdf;

Education and Adoption Bill: Explanatory Notes (3rd June 2015), http://www.publications.parliament.uk/pa/bills/cbill/2015-2016/0004/en/16004en.pdf (both last accessed 11th November 2016).

Schools National Funding Formula.

Schools national funding formula: Government consultation — stage one (7th March 2016), https://consult.education.gov.uk/funding-policy-unit/schools-national-funding-formula/supporting_documents/Schools_NFF_consultation.pdf;

Schools and high needs funding reform: The case for change and consultation summary (March 2016), https://consult.education.gov.uk/funding-policy-unit/schools-national-funding-formula/supporting_documents/Summary%20and%20case%20for%20change.pdf;

National funding formula: equality analysis (March 2016), https://consult.education.gov.uk/funding-policy-unit/schools-national-funding-formula/supporting_documents/Equality_analysis.pdf;

School revenue funding: Current funding arrangements (March 2016), https://consult.education.gov.uk/funding-policy-unit/schools-national-funding-formula/supporting_documents/Current_funding_system.pdf (all last accessed 11th November 2016).

Department for Environment, Food and Rural Affairs

Banning the Burning of Waste Oil as a Fuel in Heaters.

Consultation on the implementation of amendments to the environmental permitting guidance on waste incineration (September 2015), https://consult.defra.gov.uk/atmosphere-local-environment-team/waste-incineration-guidance/supporting_documents/Consultation%20Document.pdf;

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APPENDIX 5: TESTABLE CLAIMS. WHEN IS EVIDENCE EXPECTED

Policymaking is about finding ways to influence and organise society, so it is based on a combination of politics, values and pragmatism. Some claims about why a policy is being introduced cannot be tested with evidence and some can.

But while we can all agree that there are many factors in a decision, it's useful to distinguish where we would expect supporting evidence, and where we wouldn't. We have a right to know when policymakers are simply asserting beliefs and when they are making claims about fact. There is a world of difference between expressing political values and making promises that could one day be proved right or wrong. For example …

"Hosting the Olympics will be an exciting and prestigious thing for our city to do."	"Hosting the Olympics will encourage more people to take up sport and get more exercise, and there will be a net financial benefit from increased tourism and investment."
"Marriage is the bedrock of our society and we should support and recognise that commitment through a married couples' tax allowance."	"A married couple's allowance will increase the number of children growing up in married households and reduce anti-social behaviour."
"Supporting children from all backgrounds is a priority for this government, so we need a national network of early years centres to show that commitment."	"If we provide early years centres we will measurably improve the education of children who have access to them."
"We don't believe that what people do in their personal lives is our business. So we support decriminalisation of small amounts of cannabis for personal use."	"Cannabis has substantial health benefits and we should decriminalise it."
"It is not fair that some rich people don't play by the same rules as everyone else. 'Non-doms' should be taxed."	"'Non-doms' should be taxed because it will bring more money to the Exchequer, even if some of them leave as a result."
"This government is committed to devolving power to the regions because everyone has a right to local democracy."	"This government is committed to devolving power to the regions because it will stimulate economic regeneration."

These examples were put together with help from Dr David Robert Grimes.

Sense about Science is an independent campaigning charity that challenges the misrepresentation of science and scientific evidence in public life. We advocate openness and honesty about research findings, and work to ensure the public interest in sound science and evidence is represented and recognised in public discussion and policymaking.

MISSING EVIDENCE:

An inquiry into the delayed publication of government-commissioned research

The Right Honourable Sir Stephen Sedley
June 2016

FOREWORD
by Nick Ross

One way or another we hand over to the government about a third of everything we earn. That's almost three-quarters of a trillion pounds a year. We should expect Whitehall to spend it wisely on our behalf. Yet while a lot of energy is spent scrutinising the private lives of individual politicians we know little about how much public policy is based on assertion, how much rests on dogma and how much is grounded on rigorous testing and analysis.

Missing or buried research represents a democratic deficit. It feeds cynicism and has no place in any honest and well-conducted administration.

I regard this as one of the most important challenges facing our society. If we don't know what works we are left with assumption — and, as we all know, assumption is the mother of a lot of mistakes, some of them very serious. Whether the issue is safety of vaccines or the right way to teach children or the best approach to drug abuse or crime, policies based on guesswork, half-truth or belief are not just potentially very wasteful but dangerous.

There are two overriding problems: that good evidence is often scarce and that adversarial debate does not always encourage objectivity. But even when important evidence exists we don't always get to see it.

This is why Sir Stephen Sedley has done such a public service with his report. Sir Stephen is one of the UK's foremost experts on administrative law with experience in the High Court and Court of Appeal. We asked him to review how much government research gets published, how much is hidden from us, and if so why.

His report breaks new ground.

I am pleased to see he is not critical of politicians, and nor does he quarrel with the political nature of policymaking. Subjectivity is inevitable. We are all tempted to cherrypick evidence — what psychologists call cognitive bias. Nobel-winner Daniel Kahnemann calls it 'thinking fast' rather than giving equal weight to facts that undermine our preconceptions. But it is especially hard for politicians to face inconvenient facts. It is not just that people attracted to party politics tend to be rooted to a narrative, but that even open-minded politicians are expected to follow a party line, to have policies for each occasion and trenchant views for every Question Time appearance. They are buffeted by the news cycle and by distractions and crises famously described as, "events dear boy, events." Yet they face ridicule if they make U-turns, even when they change their minds in the light of better evidence.

So we all play a part in persuading policymakers to nail their colours to the mast. Little wonder that some political advisers are sceptical about research since they fear it might come up with the wrong answers. On the other hand, some who favour research think unbridled publication is a step too far since if embarrassing answers must go on the public record there is a risk that less research will be commissioned.

Sir Stephen reveals how things go adrift but also how some policymakers resolve these tensions much better than others.

No one knows how much the government spends on research. In fact one of the problems Sir Stephen addresses is how little coordination there is across policy research. But estimates suggest about £2.5 billion a year goes to providing an evidence base for public policy. And for one reason or another, as his report makes clear, some of this fails to see the light of day.

Occasionally this is because of deliberate suppression but Sir Stephen points to deeper, systemic problems.

The UK government has a creditable reputation for openness — it was recently ranked as one of the most transparent in the world. Missing or buried research represents a democratic deficit. It feeds cynicism and has no place in any honest and well-conducted administration.

So his report is a wake-up call. Sir Stephen Sedley poses important questions at the heart of which is this: how can we create a level playing field where policymakers can follow facts more easily than skew them to fit preconceived positions, and where reliable evidence counts for more than persuasive sound bites? He has begun a conversation that should now take place widely, thoughtfully, without point-scoring and without defensiveness.

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INTRODUCTION

The United Kingdom government spends about £2.5 billion[i] a year on research intended to guide, develop, modify and monitor policy on a wide variety of issues. Some of this policy research is done in-house. Some of it is conducted by outside individuals and bodies who are paid to do it.

This report is concerned with the publication of research which government has *commissioned* from external researchers. The reasons for this are both practical and legal. The volume of research done within departments, and the variety of forms it takes, are huge and (apart from the estimated global cost) unquantified. The routine announcement and publication of all such research would not only create a considerable administrative burden; it would require the segregation of research findings from policy advice to ministers which at present, whether rightly or wrongly, enjoys immunity from disclosure even in litigation. The case for transparency about intra-departmental inputs into policy formation is therefore different from the case, which this report examines, for invariable publication of expert research and findings externally commissioned by government.

Government, which readily recognises that the public is entitled to see the product of external research paid for with its money, has set guidelines and protocols that require prompt publication. All departments reflect this requirement in their research strategies.

Nonetheless government research is not always published in sufficient time for informed public discussion. There have been instances of publication being held back when the findings were politically awkward. Such cases have included research on food banks, immigration, choice of GP and drugs policy.

These instances have led to concern about:

- Failure to make publicly-funded research available to the public.
- A lack of transparency about the basis of government decisions and the role that evidence played in reaching them.
- A reduced willingness of researchers to assist in policymaking.

In response to these public concerns, Sense about Science initiated this inquiry into the delayed publication of government research, and into possible remedies. Details of the authorship of the report are set out in Appendix I.

Its aims were to:

- Understand what has happened in known cases of delay in research publication.
- See how problematic research can be handled well.
- Identify poor practice in the commissioning and dissemination of government research.
- Draw attention to good practice that could and should be replicated.

This is an opportune moment to consider the visibility of the evidence base for public policy. Government and civil society are developing the UK's third National Action Plan on Open Government, which will propose ways to make government more open and accountable. The Independent Commission on Freedom of Information has reinforced the principle of openness. Introducing its report to parliament in March 2016, Lord Bridges said, "We are committed to being the most transparent government in the world." In 2015 the World Wide Web Foundation ranked the UK as the most transparent government in the world. Yet, as this report demonstrates, the withholding of external research from public scrutiny remains a problem.

At a time of public spending constraints, it is also to be expected that government will seek opportunities to increase the value derived from research, reduce waste and identify ineffective or mistaken policy decisions.

This inquiry was initiated in September 2015. Its scope was determined by initial consultation with researchers, civil servants and politicians. The individuals in the scientific, policy and political sectors who provided written submissions, and those with whom we conducted interviews, are listed in Appendix II. Some are quoted below,[1] but this report has benefited greatly from contact with all of them. Its content, though, remains the author's responsibility.

The inquiry and the production of this report were supported by a grant from the JRSST Charitable Trust (Registered Charity No: 247498) and by Nick Ross. Details of the inquiry's methods and the call for evidence are in Appendix I.

SUMMARY

No comprehensive account exists of how much government research is commissioned, nor of how much of it is published and when. This in itself is a significant problem, and it is why this report recommends that there should be a single publicly searchable database of all external government research.

The most prominent issue is delay in the publication of research findings to accommodate political concerns about policy announcements. If government policy is formulated and announced before the media and the public know what expert evidence ministers have received, public discussion (including parliamentary scrutiny) may be handicapped or stifled. Delay designed simply to avoid political embarrassment is not ethically acceptable, and this report puts forward proposals to ensure timely public access to research even — indeed especially — where it conflicts with policy. It will be suggested that research should ordinarily be published as soon as it is ready, and ahead of policy announcements unless this is genuinely impracticable. Deferral beyond the time of policy promulgation should require very strong justification.

By publication we mean online access to the report of the research. It appears currently that uncertainties over format and any review process can delay publication, and some witnesses have described concerns that this uncertainty can be used intentionally. The practice should be to agree the type and format of the research report as part of the commission. Any review process and timing of that should also be agreed in advance. Plans for a journal publication are not a reason for delaying publication where a report has already been submitted for use by government. Similarly, a journal's print schedule should not affect the timeliness of research for public discussion of policy; reviewed preprints should be used where necessary.

Analysis of the reasons for delayed publication, and of practices that allow difficult research to be handled well, points to the following recommendations:

I   a standardised central register of all externally commissioned government research.

II   clarity on what constitutes externally commissioned government research.

III   a clear commitment to prompt publication in research contracts.

IV   routine publication of research government has considered in policy formulation with, if appropriate, reasons for rejecting it.

V   a clear statement of the current requirements for prompt publication and adherence to them.

VI   training in research for policy communicators.

These recommendations are set out in more detail at the end of the report.

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[i] The most recent year for which Office for National Statistics (ONS) figures are available is 2013. The 2013 ONS bulletin on UK Government Expenditure on Science, Engineering and Technology also shows that government spent £5 billion on in-house R&D, purchased R&D and on funding external organisations to run R&D, both in the UK and overseas. It is difficult to tell how much of this was spent on commissioned research. Government separately spent £5.9 billion on funding research councils. The research done by these institutional bodies is not within the scope of this inquiry.

[1] Quotations, unless otherwise stated in the text or footnotes, are from submissions to the inquiry.

Section 1

IS THERE
A PROBLEM?

1.1   It might have been thought that any problem of delayed publication of government research could be readily identified and quantified. Each department of state and executive agency must know what research contracts it has issued in, say, the last three years, and be able to say whether the researchers have reported and, if they have, when their report was made public.

1.2   It has been disturbing to find that this is not how things are. The extent of reporting and record keeping varies enormously between government departments. Using Freedom of Information (FoI) requests, it has emerged that some departments — eg the Department for Environment, Food and Rural Affairs, the Department for Transport and the Department of Health — give online access to databases that set out what research has been commissioned and what stage it has reached. Others — eg the Department for Communities and Local Government (DCLG) — only list published studies without indicating whether the lists contain all research that has been commissioned. See Appendix III for full details of the FoI requests.

1.3   Some departments responded to FoI requests by supplementing their public lists with more complete information. DCLG provided a comprehensive list of studies commissioned, completed and published between 2013 and 2015. By contrast, the Department of Energy and Climate Change and the Foreign Office did not know what had been commissioned because that information was dispersed within the department and not held centrally. Adding to the difficulty of finding out about government research, it has been suggested to us that incoming administrations may sometimes consign directly to the National Archives research bespoken by their predecessors.

1.4   In the absence of the comprehensive information that ought to be available, it has been necessary to examine what has happened in cases where the failure to publish government research had been reported in the media or elsewhere.

1.5   We know from a Supreme Court judgment that in 2007 the home secretary withheld publication of research that failed to support a proposed policy of denying visas to spouses where one of the couple was under 21. But concerns over the independence of government research reach further back: Professor Roger Tarling, former head of the Home Office Research and Planning Unit, wrote in 2011 about strained relations between government and social researchers during the 1980s and 90s, and in 1988 the Association of Social Research Organisations reviewed conditions about publication in research contracts because their members viewed them as becoming "increasingly onerous and restrictive."

1.6   There is no recent evidence of the indefinite suppression of research. However, there is good evidence that research publication does get delayed. The reasons, in addition to political concerns about the timing of publication, may include uncertainty about peer review, about what counts as government research, and about what should be published in relation to policy announcements. Yet delayed publication can be as damaging as indefinite suppression because it deprives parliamentarians, the media, NGOs and others of the timely access they need in order to be able to engage with policy formation in the light of contemporaneous evidence.

1.7   There will always be cases in which government is doubtful about or dissatisfied with the quality of the research. This does not ordinarily justify delay in publication: the more appropriate course is for openly stated grounds of doubt or disagreement to accompany publication.

As Professor Sir Nigel Shadbolt told us:

"A significant reason to publish openly is that 'many eyes' on the material is one way to quickly highlight shortcomings in the work itself — open publication tends to improve the quality of data and analysis."

1.8   The impossibility of assembling a full picture of government research has ineluctably become an aspect of this inquiry. This report includes some remedies. First, however, it is necessary to describe what counts as government research and to sketch the rules presently governing it (Section 2). Section 3 describes features of the problem of delayed publication from evidence in the public domain or obtained in the course of the inquiry. Section 4 describes some encouraging examples of government bodies publishing research despite challenges or contradictions with current policy. The report concludes with recommendations for making decisions about publication more consistent, fair and open, bearing in mind that protocol and practice should not be such as to inhibit ministers and civil servants from commissioning research on politically difficult questions.

Section 2

THE SYSTEM OF CONDUCTING, COMMISSIONING AND PUBLISHING GOVERNMENT RESEARCH

What constitutes government research?

2.1   Research in its broadest sense signifies any attempt to obtain or gather information. A civil servant or policy adviser who is asked to canvass opinion among colleagues, to undertake a horizon scan, or simply to Google some information, is doing governmental research. But research of this kind is not the subject of this report. **This report is about discrete high-level studies designed to elicit or establish information by means of measurement, testing, evaluation and analysis.** This in turn implies that both methods and results should be objective and neutral, permitting interrogation of claims and policies to which they relate. While individual products of research may fall short of these standards, there is a general expectation that research will increase the sum of knowledge.

2.2   Government commissions such research in a variety of ways. Broadly speaking, in addition to research undertaken within departments of state and 'arm's length' agencies, research may be carried out by private agencies of a quasi-governmental character or independent external bodies such as universities. It is with the publication of research undertaken by these external bodies that this report is concerned.

2.3   The foregoing is far from exhaustive: for instance, external agencies or consultants or individual academics may be drafted in to assist with departmental research.

As **Patricia Hewitt, former secretary of state for health**, told us:

"For many years now, government departments have been outsourcing a considerable amount of what used to be core Whitehall functions. So, a consultancy may be asked to review the literature and/or international experience on a particular issue; to undertake statistical analysis or economic modelling of policy options; to run a public consultation; to analyse the results of a public consultation; or to provide policy advice. Sometimes, the external consultancy uses proprietary expertise and IP."

All of this undoubtedly creates difficulties of taxonomy for a comprehensive register of government research, and it is why this report focuses on independent external research, where the boundaries are reasonably clear and the case for routine early disclosure is strong. But much of the report's reasoning and much of what it recommends in relation to independent research will be relevant to how a government committed to openness decides to deal with the disclosure of internal research. Asking the public to rely on information they cannot see is objectionable in principle whatever the source or nature of the information.

2.4   Given the complexity of the system and the lack of robust data emerging from the initial scoping exercise, the following remit was adopted in the call for evidence: "The inquiry will consider the publication of research, including analyses of official statistics, initiated by Whitehall departments and the arm's length bodies that report to them. We also welcome submissions relating to devolved administrations, but not to local authorities."

2.5   **Although the Office for National Statistics' Science, Engineering and Technology figures tell us that approximately £5bn is spent annually on government research,[2] there is no reliable breakdown of what that money is spent on or what happens to the studies.** Government does not collect this information centrally. To do so it would have to rely on departmental data, but many departments and arm's length bodies do not collect information centrally about what research they have commissioned. Teams within departments and arm's length bodies can conduct or commission their own research without the rest of the organisation knowing about it.

Asking the public to rely on information they cannot see is objectionable in principle whatever the source or nature of the information.

[2] Department for Business, Innovation & Skills (2013)

2.6   At the start of this inquiry it was assumed that departmental chief scientific advisers (CSAs) would concern themselves with all research in their department and have an overview of what happens to it. It appears this is not always the case. The Government Office for Science's document *Chief Scientific Advisers and their officials: an introduction* (2015) sets out how CSAs provide scientific advice to ministers and help prepare their department's research strategies that set broad objectives. They also oversee research in the natural sciences. But we found that the way CSAs carry out their role, their seniority and their access to ministers and permanent secretaries varies between departments. CSAs have a minimal role in overseeing social scientific research, which forms a significant proportion of research in many departments and is governed by the separate government social research (GSR) profession.

Government research

2.7   The system of government research is vast, complicated and fragmented. The 24 ministerial departments in Whitehall, and the hundreds of public bodies and agencies that report to them, take very different approaches to conducting, commissioning and publishing research. So do the devolved administrations of Scotland, Northern Ireland and Wales. This section summarises the system, the recognition in existing guidance and protocols that findings should be published promptly, and whether this requirement is well-understood and followed.

2.8   Government funds research in two ways: through the science budget (administered by the Department for Business, Innovation and Skills and mainly distributed through research councils and universities), and through research conducted or commissioned by departments of state, executive agencies and arm's length bodies in their own policy areas.

2.9   A range of researchers carries out government research: civil servants working within Whitehall departments; those in arm's length bodies and executive agencies including public sector research bodies; independent researchers in universities and research institutes; and consultancies.

2.10   Government conducts research for objectives running from assessing the extent of natural and social problems to informing the development of policy and evaluating its impact.

2.11   The Government Office for Science explained to us: "As with research in any other context, there is a spectrum of increasing formality, ranging from basic 'desk research,' through more formally managed projects, to research which is subject to formal peer review."

2.12   Research conducted for government is governed by a variety of rules, principles, guidance and protocols, which use their own definitions of what counts as research and when and how it should be published. These are discussed in paragraphs 2.20-2.23. Section 3 addresses whether these definitions create uncertainty over what should be published and when, and makes recommendations for greater clarity.

Reasons for publishing government research

2.13   Publishing government research facilitates scrutiny of what is being done or proposed on behalf of the public. This matters more in an era when government frequently points to evidence to justify policy.

2.14   The rules and statements that cover government research acknowledge that research funded by taxpayers should be made publicly available.

2.15   Publication of government-commissioned studies is among other things a mechanism for ensuring that departments know what research they have done themselves in the past, and enables them to avoid duplicating their own research. Although one cannot estimate the extent of such duplication because of the lack of data about research, civil servants say that departments spend significant time trying to find past studies that they conducted or paid for. Publishing government research also enables departments to learn from each other's findings.

2.16   An important value of external research is that it reduces the risk that government research will be slanted, or perceived to be so.

2.17   Full publication can also help to ensure that the evidence from government research informs wider scientific knowledge by giving researchers access to a larger body of findings.

2.18   **Researchers who have experienced delays in their research being published told this inquiry that it has affected their willingness to put themselves forward to run government-commissioned research in the future.** The bad publicity associated with the cases described in Section 3 may have influenced others in this regard. It is clearly not in government's interest, or in the public interest, if there is a narrowing pool of people who are willing to work on government contracts.

2.19   Little or no dissent from these broad propositions was encountered in the course of this inquiry. There is a general expectation that the results of government research should be made publicly and promptly available.

              For example, Andrew Miller, former MP and chair of the House of Commons science and technology select committee, said:

              "The goal should be a culture where government aims to 'suck in' as much good quality advice and data [as] it can, putting as much as possible in the public domain — with the default question being 'why shouldn't we publish all of this?"

              Sir Venki Ramakrishnan, president of the Royal Society, said:

              "It is important that government is transparent about how policy decisions have been made. To enable policymaking to be properly scrutinised, the evidence on which it is made should be available. This includes data held by the government and the findings of commissioned research."

              Dr Sarah Wollaston MP, chair of the House of Commons health select committee, said:

              "If research is withheld, how can the public judge whether it reflects scientific consensus, whether it's correct, and how it links if at all to policy decisions? Of course those decisions take account of other considerations, but the evidence base for them should be open to scrutiny."

Rules require the prompt and full publication of government research

2.20   Government recognises the public expectation of publication, codifying it in rules requiring prompt and complete publication of research conducted or commissioned by Whitehall departments. However these rules are not clearly defined; in some areas they are strongly stated and in others weakly implied.

2.21   Government research in the natural sciences is governed by the high-level principles set out in *Principles of scientific advice to government* (Government Office for Science, 2010a). Further guidelines set out how these principles should be applied by scientific advisory committees and departments. These include: *The Government Chief Scientific Adviser's Guidelines on the Use of Scientific and Engineering Advice in Policy Making* (Government Office for Science, 2010b), which set out "how scientific and engineering advice should be sought and applied," and *Chief Scientific Advisers and their officials: an introduction*, which "sets out broad guidelines for the work of chief scientific advisers in departments." In addition, each department sets a research strategy reaffirming the commitment to publishing its research in full.

2.22   The publication of government social science research is covered by the GSR profession's publication protocol (Government Economic & Social Research Team, 2015).

Are rules requiring prompt publication well-understood and followed?

2.23　Over the past few years this group of rules has evolved from guidance into codes of practice and ultimately into civil service and ministerial protocols, making them progressively more systematic, although they remain unevenly applied across different areas of research. It is understood that the GSR profession upgraded its publication guidance to civil service protocol (which means that it can be more formally enforced), following concerns that the expectation of open publication was breaking down in some departments.

2.24　As these rules ultimately acknowledge, what matters for democratic accountability is timely access to research to facilitate public interaction with policy. If the rules were followed in every case, would they prevent the delays and withholding that are discussed in the following sections?

2.25　Evidence submitted to this inquiry by researchers, civil servants and parliamentarians suggests that the system of guidelines and rules leaves room for uncertainties over:

a) whether a particular research project is subject to publication;

b) if so, when; and

c) which rules take precedence

The pressure on policymakers to align the publication of evidence with policy agendas sharpens the question of when studies should be published in relation to the policy they are intended to inform. Different views on how and why this matters, and recommendations to resolve the tension, are set out in the following sections.

2.26　First, however, it may be helpful to look at some prominent cases in which publication of research has been held back, in an attempt to gauge the significance of the problem.

Rules governing the publication of government research

Principles of scientific advice to government (2010):

> " *Scientific advisers are free to communicate publicly their advice to government, subject to normal confidentiality restrictions, including when it appears to be inconsistent with government policy; scientific advisers have the right to engage with the media and public independently of the government and should seek independent media advice on substantive pieces of work; scientific advice to government should be made publicly available unless there are over-riding reasons, such as national security or the facilitation of a crime, for not doing so; government should publicly explain the reasons for policy decisions, particularly when the decision is not consistent with scientific advice and in doing so, should accurately represent the evidence."*

The Government Chief Scientific Adviser's Guidelines on the Use of Scientific and Engineering Advice in Policy Making (2010). Departments and policymakers within them should:

> " *...adopt an open and transparent approach to the scientific advisory process and publish the evidence and analysis as soon as possible, and explain publicly the reasons for policy decisions, particularly when the decision appears to be inconsistent with scientific advice."*

Chief Scientific Advisers and their officials: an introduction (2015):

> " *Departments and policymakers should... adopt an open and transparent approach to the scientific advisory process and publish the evidence and analysis as soon as possible."*

Publishing research and analysis in government: GSR Publication Protocol (2015):

> " *There will be prompt release of all government research and analysis. Government social research and analysis must be released in a way that promotes public trust."*

Section 3

REASONS FOR THE DELAYED PUBLICATION OR WITHHOLDING OF GOVERNMENT RESEARCH

What are the scale and significance of the problem?

3.1   Many government departments do not know, and could not tell us, how many research studies they have commissioned or which of them have been published. Below are the results of attempts to fill the gaps.

3.2   Four out of 24 departments and the two executive agencies that were asked (the Environment Agency and Public Health England) provided full lists of studies they had carried out themselves or commissioned from outside experts. Ten departments replied that it would be too time-consuming and costly to find this information, so that under Section 12 of the Freedom of Information Act[3] they were not required to reply. See Table 1 on page 14 for details of the departments.

3.3   The Defence Science and Technology Laboratory, the Ministry of Defence's research arm, responded that it could take up to 160 working days to find the relevant details, since it has roughly 1,000 research studies running in any one financial year. Several other departments directed the inquiry to publicly accessible lists or databases of research studies, but were not prepared (again by virtue of Section 12) to say whether these included all studies they had commissioned.

3.4   That many government departments do not know, or cannot tell us, what research they have commissioned is frustrating for the public and for parliamentarians. Submissions to this inquiry also raised concerns about effects on the efficiency of government. For example some departments, unsure about work that has been done in the past, have to spend significant time and money investigating their own research history before undertaking new projects. There is also little opportunity for departments to learn from each other's research because there are no standardised records of what has taken place.

The hunt for research

In addition to the lack of standardised and comprehensive record keeping, it seems that government employees encounter significant problems with finding such material as may be available through government's own website and electronic records. This inquiry did not find any positive reference to the information available on gov.uk. We asked current and former civil servants as well as researchers who carried out government-commissioned research how easy it is to find research government has commissioned in the past.

> " *To be honest, it would never occur to me to try [to find research on gov.uk] — I would always ask someone I knew in the relevant area." And if you didn't know someone in the area? "In my case I would either ring someone in that department who I know, or assume it does not exist.*"

> " *If you want to find out what government is doing, Google it.*"

> " *Officials find it hard to find work their own department did previously, as happened with research on biofuels.*"

> " *Reports can be hidden on obscure servers, making findings more readily available on, for instance, RAND website than on gov.uk. This leaves civil servants unable to find their own work.*"

These comments were recorded non-attributably in the course of the inquiry.

[3] Section 12 of the Freedom of Information Act 2000 exempts authorities from providing information if the cost of doing so exceeds an appropriate limit. For ministerial departments this limit is generally set at £600.

3.5　　The creation of ghost research

In those departments where there is no mechanism to find or track research, there is a risk that officials will not be able to find research at all. It may be that only the officials who commissioned the research know about it. Once officials leave their post the knowledge is lost and, if the research has not been published in an accessible body of literature, it leaves no record and its results will never be used. It becomes ghost research.

3.6　　The lack of a full account of what happens to government research makes it difficult to assess, from the known cases of delay, how much the system and procedure contribute.

As David Walker, head of policy at the Academy of Social Sciences, said:

"Evidence has to be more than anecdotal for the problem [of research being withheld] to be considered systemic."

3.7　　The need for rules and guidelines prioritising early publication may in fact indicate recognition of pressures within the system to do the opposite. We note that procedures for the publication of government social research were recently upgraded from guidance to protocol.

Professor Dame Sally Davies, chief medical officer for England, told the inquiry that the systems in place now support publication:

"Although a decade or more ago there may have been more of a problem with research being delayed, clearer guidance and publication frameworks in place today mean there isn't a major problem anymore."

3.8　　This report looks at some prominent examples of delayed publication that have come to light chiefly through media reports. But evidence submitted to the inquiry, including that on the publication of policy trials and statistical analysis, suggests that delays may be more frequent.

Ed Humpherson, head of assessment, UK Statistics Authority, said:

"UKSA find it unacceptable for [public] claims to be made without everyone having access to the analysis behind them, so we press for publication. That we have to do this repeatedly means that the principles of prompt publication found in codes governing research might not be that strongly embedded."

3.9　　The level of disorganisation described above may well be contributing to speculation that publication of research is routinely delayed for political reasons. If so, this is both unnecessary and harmful to government, since it is likely that the majority of external research studies are published without undue delay.

3.10　　Although systematic appraisal of publication patterns is currently impossible, it is possible to assess the circumstances in which known delays have occurred. Cases of delayed publication and evidence submitted to this inquiry suggest that government research may be held back for reasons including:

- the desire to align publication with the announcement of policy, resulting in delayed publication of findings that are politically inconvenient;

- uncertainty over how peer review and discussions about research quality and validity should be handled; and

- uncertainty over what counts as government research, and differences in the interpretation of the rules.

3.11　　The thorniest problem is the adjustment of the timing of publication for political reasons.

Table 1: Details of responses to Freedom of Information requests

Attorney General's Office	Does not hold the information requested
Cabinet Office	Too costly to provide the information, as it is held in many different files and locations
Department for Business, Innovation and Skills	Too costly to provide the information, as it is held in many different files and locations
Department for Communities and Local Government	Provided a list of all commissioned research
Department for Culture, Media and Sport	Provided a list of all commissioned research
Department for Education	Linked to an existing list of all published reports
Department of Energy and Climate Change	Too costly to provide the information, as it is held in many different files and locations
Department for International Development	Linked to publicly accessible database of all commissioned research
Department for Transport	Has a publicly accessible database of all commissioned research; too costly to provide information about completeness, as it is held in many different files and locations
Department for Work and Pensions	Linked to an existing list of all published reports; too costly to provide information about completeness, as it is held in many different files and locations
Department for Environment, Food and Rural Affairs	Linked to publicly accessible database of all commissioned research
Department of Health	Linked to publicly accessible database of all commissioned research
Environment Agency	Provided a list of all commissioned research
Foreign Office	Too costly to provide the information, as it is held in many different files and locations
Home Office	Too costly to provide the information, as it is held in many different files and locations
Ministry of Defence	Too costly to provide the information, as it is held in many different files and locations
Ministry of Justice	Provided a list of all commissioned research
Northern Ireland Office	Does not hold the information requested
Office of the Advocate General for Scotland	Did not carry out or commission research in the period inquired about
Office of the Leader of the House of Commons	Does not hold the information requested
Office of the Leader of the House of Lords	Does not hold the information requested
Public Health England	Provided a list of all commissioned research
Scotland Office	Did not carry out or commission research in the period inquired about
Treasury	Too costly to provide the information, as it is held in many different files and locations
UK Export Finance	Provided a list of all commissioned research
Wales Office	Did not carry out or commission research in the period inquired about

The politics of publication

The desire to align publication with the announcement of policy

3.12 There is good evidence of pressures to align publication of research both with government's broad policy agendas and with particular policies relating to the evidence itself.

Fiona Fox, chief executive of the Science Media Centre, spoke of the role of The Grid, a system whereby special advisers in Number 10 can manage weekly government announcements across all parts of government:

"No report or publication can be released without a 'slot' on the Grid… There are multiple delays and the timing is often politicised: we were told that one report on animal research was delayed because Number 10 special advisers felt it was unfortunate timing because it clashed with the prime minister's 'Alzheimer's Week'. Another 200 page report on mental health was delayed because it contained two pages on links between the recession and depression which clashed with a major speech on the economy."

3.13 There are at least two views on how the timing of publication should relate to the announcement of particular government policies. One view is that research should be published when it is complete, and in advance of the related policy, so that Parliament, experts and the public can consider the evidence before the policy is announced.

Professor Dame Sally Davies, said:

"There's a difference between externally commissioned research, and that done directly by civil servants. With the latter, it's right that departments can align the timing of publication to within weeks of a policy announcement; but if the policy announcement is to take a lot longer, they should publish research as soon as possible even if that's in advance of the policy. [As far as the Department of Health is concerned, the] timing of externally commissioned research is almost wholly a matter for the researchers."

3.14 An alternative view is that it is justifiable to hold back publication of research and release it together with the policy.

Nicola Blackwood MP, chair of the House of Commons science and technology select committee, told us:

"Often there's value to releasing research at the same time as policy. Releasing findings that criticise government policy, without details of how government is dealing with the criticism, could damage confidence where the research has immediate implications for public safety. This makes it more important that delays are explained and clarified: is government preparing its response to complex findings, were the findings themselves disliked, and where does the research sit in relation to other policy announcements in the government's communications 'grid'?"

3.15 It seems reasonable that unless public safety is endangered, research should be published when it is complete. Where delays occur, they should be satisfactorily explained. This is no more than the rules governing departmental research require. The importance of timely access to evidence is acknowledged by the frequent mention of prompt publication in these rules.

Where delays occur, they should be satisfactorily explained.

3.16   Implicit in attempts to control the timing of research publication is the idea that this is to the benefit of the policy. However, instances of delayed publication, including research into minimum alcohol pricing (Case Study 1) and ways to tackle sugar consumption (Case Study 2), in fact illustrate the harm that can by done by delaying publication to align with the announcement of policy.

3.17   In both these cases, publication of research was delayed to coincide with the announcement of government policy.

Dr Sarah Wollaston MP told us:

"Delay [in publishing research into sugar consumption] is clearly in effect as bad as non-publication, as the scientific community don't get to analyse the evidence base on which government is basing its strategy [to reduce childhood obesity]."

3.18   There are a number of other reasons why publication of research may be delayed. A report into how the food supply became contaminated with horsemeat (Case Study 3) appears to have been delayed partly because of fear of how the public might react to the findings, and partly in order to accommodate changes in cabinet which required more time for ministers to prepare a response.

Delayed publication of findings that are politically inconvenient

3.19   The Department for Environment, Food and Rural Affairs (Defra) explained delay in the publication of food banks research in 2013 (Case Study 6) as resulting from the peer review process. However, the authors of the study said that the initial peer review was positive and that concerns were raised subsequently about how the findings would impact on policy. In the case of research into immigration and the labour market (Case Study 4), it appears that government was happy to publish previous research that supported what ministers had been saying, but held back analysis that challenged it. In the case of a study into drugs policy in other countries (Case Study 5), this inquiry was unable to find any reasons other than political ones for why publication was delayed.

3.20   In all of these instances, the delays in publication appear to have been caused to varying degrees by political concerns about the implications of the research. This is not commensurate with principles either of independent research or of democratic debate. It should also be noted that none of the guidance on publication of research recognises this as a valid reason for delay.

3.21   There clearly are, and always will be, political pressures to control timing and information. Some fear that attempts to reduce this pressure could lead to less research being commissioned.

For instance, Jonathan Portes, National Institute of Economic and Social Research, said:

"There is an absolutely insuperable dilemma with the present system. The more the rules are changed to avoid the obvious current problems (politically motivated delays, endless redrafting, etc) the more the incentives on ministers will be simply not to commission independent research."

Others raised similar questions. The possibility of this unintended consequence is considered in discussion of the recommendations in Section 4, where it is noted that departments with research registers are among the most research active.

3.22   Whatever the case, subjecting research publication to political pressures is not a suitable response. It not only challenges principles and protocols but frequently causes political difficulties of its own. While matters of timing must occasionally be negotiated — including for some practical reasons discussed further on — it would be better for government to improve its communication of complex or challenging findings to the public and where necessary publish notes explaining why policy and research have not reached the same conclusions.

There clearly are, and always will be, political pressures to control timing and information.

Uncertainty over how peer review and discussions about research quality and validity should be handled

3.23 This report notes three cases where the peer review process was cited as part of the reason for delayed publication. When publication of research on the rising use of food banks (Case Study 6), and on evaluating changes to GP practice boundaries (Case Study 7), was delayed, government spokespersons said that the reports were awaiting peer review.

3.24 Case Study 8 shows the difficulties that can arise if government withholds research, even if this is because of doubts over the quality of research, without explaining its reasons.

Case Studies

Case study 1

THE EFFECTS OF MINIMUM ALCOHOL PRICING

The allegation

According to Dr Sarah Wollaston MP, the Department of Health (DH) delayed the publication of a study of the effects on alcohol abuse of a minimum price compared with a ban on below cost sales, until the day of a government policy announcement.[4]

Timeline

Mar 2012	Government published its alcohol strategy, undertaking to introduce a minimum price per unit of alcohol.[5]
Nov 2012 - Jul 2013	The government launched a consultation on delivering this strategy [6] and asked researchers at University of Sheffield to model the impact of a minimum unit price.
Mar 2013	Researchers provided a draft report to the Home Office, DH and the Treasury. Asked to model the effect of a 45p minimum price, they estimated it would "reduce alcohol consumption by 1.6%, leading to approximately 625 fewer deaths per year due to alcohol, 23,700 fewer hospital admissions and 34,200 fewer crimes" after ten years. They compared this with the effects of banning the sale of alcohol below cost price, which their model shows would be far less effective at reducing problem drinking: it was estimated to "reduce consumption by just 0.04%, leading to around 15 fewer deaths, 500 fewer hospital admissions and 900 fewer crimes related to alcohol per year."[7]
Jul 2013	On the same day as the Sheffield study was released, the government rejected a minimum price. The crime prevention minister announced that government opted instead for a ban on below cost sales.
Jan 2014	The authors of the research released a statement, saying, "The government did not bar [us] from releasing the reports — we had agreed from the outset that we would align our publication with the government's response to the alcohol strategy consultation to ensure we provided their impact assessment of minimum unit pricing with the most up-to-date evidence possible. Having produced additional analyses on below cost selling in June, a further consideration was that if these were published directly before the government's announcement that could be considered a de facto announcement of government policy."
Sep 2014	Sheffield researchers published their comparative study in the *BMJ*.[8]

How were government policy and public debate affected?

The government's 2012 strategy said that a minimum price of 40p per unit "could mean 50,000 fewer crimes each year and 900 fewer alcohol-related deaths a year by the end of the decade." In the interim it changed its mind. Responding to the Sheffield study and to other evidence submitted to the consultation on that strategy, the government said the consultation had "not provided evidence that conclusively demonstrates that minimum unit pricing will actually do what it is meant to: reduce problem drinking without penalising all those who drink responsibly." Citing an "absence of that empirical evidence," they said a minimum price was being delayed "until we have conclusive evidence that it will be effective."[9] Failing to publish the Sheffield study ahead of announcing a change of government policy prevented the public from judging whether this change was justifiable.

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[4] Wollaston, S (2014)
[5] HM Government (2012)
[6] Home Office (2012)
[7] Holmes, J (2014)
[8] Brennan, A et al (2014)
[9] Home Office (2013)

Case study 2

REDUCING SUGAR CONSUMPTION

The allegation

According to Dr Sarah Wollaston MP, the Department of Health (DH) delayed the publication of an evidence review by Public Health England (PHE) looking at ways to reduce sugar consumption.[10]

Timeline

Mar 2015	Public Health Minister Jane Ellison MP wrote to PHE asking them to complete research that would "provide draft recommendations to inform the government's future thinking on sugar in the diet." PHE had made a commitment to reviewing this evidence in its 2014 report *Sugar reduction: responding to the challenge*.[11]
Sep - Oct 2015	House of Commons health select committee chair Dr Wollaston asked DH to publish the report. DH refused on the ground that the evidence is "currently informing future government policy" (sic). Dr Wollaston then called on PHE to publish it independently or at least make it available to her committee's inquiry on tackling childhood obesity. PHE declined, saying that "it is appropriate that the government has time to consider the report in the usual way" so it will be published alongside the government's obesity strategy.[12]
22nd Oct 2015	PHE published its report.[13]
Nov 2015	House of Commons health select committee published the report on its inquiry into action on childhood obesity.[14]

At the time of writing the present report, the government is yet to publish its obesity strategy.

How were government policy and public debate affected?

A high-profile campaign led by TV chef Jamie Oliver had called for a tax on sugary drinks to reduce obesity. The health select committee inquiry into tackling obesity, and the public debate on the merits of a sugar tax, were better-informed once the PHE research was published. By then the delay had caused a very public disagreement over how research should inform policy and public scrutiny.

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[10] Wollaston, S (2015)
[11] Public Health England (2014)
[12] House of Commons health select committee (2015a)
[13] Public Health England (2015)
[14] House of Commons health select committee (2015b)

Case study 3

THE HORSEMEAT SCANDAL

The allegation

According to the *Guardian*, the Department for Environment, Food and Rural Affairs (Defra) delayed the publication of an independent report into the contamination of supermarket meat products with horsemeat.[15]

Timeline

Jan 2013	Frozen meat processed at plants in Ireland and England tested positive for horse DNA. Supermarkets withdrew dozens of products.[16]
Jun 2013	Defra asked Chris Elliott, professor of food safety at Queen's University Belfast, to conduct an inquiry into the integrity of the food supply network.
Aug 2014	The *Guardian* reported that publication of the inquiry's final report was delayed.[17]
Sep 2014	The inquiry's final report was published.[18]

How were government policy and public debate affected?

The inquiry's interim report had raised a concern that cuts to local authority services had reduced the number of staff with food law enforcement skills and could undermine enforcement against crime in the meat industry. Delayed publication of the final report prevented scrutiny of these claims, and gave rise to speculation that the report was likely to be embarrassing for the government. It prevented the public from getting a full picture of the causes of a serious contamination event, and while it is understandable that ministers wanted to be well organised to respond, the delayed publication ended up creating a more challenging environment in which to make that response.

[15] Lawrence, F (2014)
[16] BBC News (2013)
[17] Lawrence, F (2014)
[18] Department for Environment, Food and Rural Affairs and Food Standards Agency (2014)

Case study 4

THE EFFECT OF IMMIGRATION ON UNEMPLOYMENT

The allegation

According to a BBC Newsnight investigation, Downing Street withheld research into the number of UK workers unemployed as a consequence of immigration.[19]

Timeline

Dec 2012 Home secretary Theresa May delivered a speech claiming that "for every additional one hundred immigrants, they [the independent Migration Advisory Committee] estimated that 23 British workers would not be employed."[20] The report May cited[21] was criticised by Jonathan Portes of the National Institute of Economic and Social Research for cherry-picking one result from many that overall showed no statistically significant effect.[22]

4th Mar 2014 Newsnight investigation alleged that civil service analysis of the same data was prevented from being published by the prime minister's office, although "Downing Street sources told the BBC the report had not yet been completed and was not ready to be released."[19]

6th Mar 2014 The Home Office's analysis is published. It notes that the Migration Advisory Committee report found "there is relatively little evidence that migration has caused statistically significant displacement of UK natives … when the economy has been strong", and that displacement "dissipates over time."[23] It also reported other research "failed to identify any statistically significant impacts of net migration on claimant count rates."

How were government policy and public debate affected?

Reducing net migration to the tens of thousands per year is a long-standing government policy. It appears that ministers pointed selectively to supportive research to justify this policy, and suppressed the publication of a more comprehensive analysis that suggested that the "displacement effect" of immigration is not a significant problem. Economists and journalists were left poorly-placed to scrutinise the impact of a migration cap because this study was not published on time, and ministers and spokespersons continued to use dubious statistics in support of their policy.

[19] Cook, C (2014)
[20] May, T (2012)
[21] Migration Advisory Committee (2012)
[22] Portes, J (2012)
[23] Devlin, C et al (2014)

Case study 5

INTERNATIONAL COMPARISON OF DRUG LAWS

The allegation

According to Liberal Democrats, Conservative members of the coalition government delayed the publication of a Home Office review of drug laws in thirteen countries.[24]

Timeline

- **Dec 2010** — Coalition government published its drug strategy, including a commitment to "review new evidence on what works in other countries and what we can learn from it."[25]

- **Mar 2013 - summer 2014** — Home secretary Theresa May ordered an international study of drugs laws in March 2013.[26] In May 2013, ministers began a review of drug laws in thirteen countries, including Portugal, Denmark and various states in the USA that have decriminalised possession of some drugs.[27]

- **Oct 2014** — Home Office minister Norman Baker accused the government of "suppressing" the report, claiming it had been ready for publication since July.[28]

- **Oct 2014** — Home Office published its review, concluding there is no clear correlation between the severity of punishment under drug laws and the prevalence of drug use.[29]

- **Nov 2014** — Norman Baker resigns as Home Office minister.[30]

How were government policy and public debate affected?

The government made a commitment to reviewing drug laws in other countries, and appears to have delayed the publication of that review because the findings were politically challenging for the dominant coalition partner. It is unlikely that timely publication would have prompted a change in legislation or even a more formal review of UK drugs policy (both had already been ruled out by the Conservatives). However, it would have allowed fuller public scrutiny of the home secretary's claims that the UK's approach to drug regulation is working, and a better-informed public debate on how the UK can learn from the way drugs are regulated elsewhere.

[24] Wintour, P and Travis, A (2014)
[25] HM Government (2010)
[26] Travis, A (2013a)
[27] Travis, A (2013b)
[28] Morris, N (2014)
[29] Home Office (2014)
[30] Watt, N (2014)

Case study 6

THE INCREASING USE OF FOOD BANKS

The allegation

According to its authors, the Department for Environment, Food and Rural Affairs (Defra) delayed the publication of a study looking at the growing use of emergency food aid for eight months.[31]

Timeline

Feb - Mar 2013	Defra asked a team of researchers led by the University of Warwick to conduct a Rapid Evidence Assessment of the research literature on emergency food aid. They looked at published literature, and issued a call for evidence that prompted providers of food aid and other agencies to contribute their experience.
Jun 2013	A steering committee including Defra, the Department for Work and Pensions and the Department of Health approved the report.
Nov 2013	The media reported allegations that the study was being "hidden"[32] and "suppressed."[33] Asked by a *Guardian* journalist to explain the delay, a Defra spokesperson said: "Government funded research projects are required to go through the necessary review and quality assurance process prior to publication. Once this process is complete, the report will be published on the government's website."
Feb 2014	Defra published final report.[34]
Mar 2014	A study published in the *BMJ* found that the rise in the use of food banks "is associated with cuts to local authority spending and central welfare spending," and that the "highest levels of food bank use have occurred where there have been the highest rates of sanctioning, unemployment, and cuts in central welfare spending."[35]

How were government policy and public debate affected?

Welfare Minister Lord Freud had argued in July 2013 that more people were using food banks because more of them existed and awareness of them had increased — in other words that increased supply had caused greater use, not increased demand. He rejected a link between the government's benefit reforms and an increased use of food banks.[36] The minister's claim could not be evaluated in the absence of evidence from the delayed report. The report contradicted the minister: it cited immediate financial crisis, often related to changes to benefits, as an important driver of food bank use.

The UK government does not collect data on food aid. In the absence of systematic evidence on the use of food banks in the UK the researchers relied on studies from the USA, Canada and other countries, and on case studies from providers of food banks. Timely publication would have highlighted the gaps in the evidence base. It would also have allowed better-informed scrutiny of ministers' claims and have required government to address the data.

[31] Dugan, E (2014)
[32] Oakeshott, I (2013)
[33] Buttler, P (2013)
[34] Lambie-Mumford, H et al (2014)
[35] Loopstra, R et al (2015)
[36] Morris, N (2013)

Case study 7

CHOOSING A GP AWAY FROM WHERE YOU LIVE

The allegation

According to the general practitioners' (GP) magazine *Pulse*, the government failed to publish an evaluation of a pilot scheme allowing people to register with GPs outside their local area until after a decision was taken to roll out the scheme nationwide.[37]

Timeline

- **Apr 2012**   Government announced a pilot scheme to allow patients to register with a GP outside the locality in which they live.[38]

- **Jul 2013**   Researchers at the London School of Hygiene and Tropical Medicine provided an interim report on the pilot scheme, at the request of the Department of Health. The lead researcher said that the report was incomplete because they were still analysing the data.

- **Mar 2014**   Final report published in the same week as new GP contract, which included an entitlement to choose a different GP.[39]

How were government policy and public debate affected?

Researchers evaluating the GP choice pilot scheme say they were asked to provide an interim report to the Department of Health in order to inform a re-negotiation of the GP contract — before robust economic data could be collected. The final report was then released in the same week as a new GP contract, which included the entitlement of patients to choose out-of-area GPs. The final report showed low take-up of the scheme: only 43 out of a total of 345 eligible practices took part in the pilot, and 15 of these did not register any patients from outside their boundary. The contract negotiations might well have taken a different course if the pilot results had been available. At the time, Nigel Praities, deputy editor of *Pulse* magazine, said, "GP practice boundaries will be abolished from next month [April 2014] in England and the government still has yet to publish an evaluation of its pilots into this scheme. This is a huge national policy change and the evidence for it has not yet been published."

It remains unclear whether publication of the final report was caused by overlong peer review, consequent revision, ministerial pressure to modify findings, or departmental inertia.

[37] Lind, S (2013)
[38] Department of Health (2012)
[39] Price, C (2014)

Case study 8

THE MINIMUM AGE FOR A MARRIAGE ENTRY VISA

The allegation

The home secretary withheld publication of research that failed to support her proposed policy of denying entry to spouses where one of the couple was under 21. The history emerged in the judgment of the Supreme Court in R (Quila) v Secretary of State for the Home Department.[40]

Timeline

2006	The home secretary commissioned Professor Marianne Hester of the University of Bristol to report on the desirability of raising the minimum age for a marriage visa from 18 to 21 in order to deter forced marriages.
Feb 2007	The Bristol report suggested that any such change would be unjustifiably detrimental to voluntary marriages and discriminatory on racial and ethnic grounds in relation to arranged marriages. The report was not published by the Home Office. The home secretary later explained non-publication on the ground that she and two external peer-reviewers, while uncritical of the methodology, were dissatisfied with the use of unsubstantiated statements, unclear terminology and sampling bias in the first draft of the report. The researchers revised the report in response to the comments from peer reviewers.
Aug 2007	The Bristol report was published independently.[41]
Dec 2007	The home secretary issued a consultation paper asking whether raising the marriage visa age to 21 will help to reduce forced marriages.
13th Jun 2008	The House of Commons home affairs select committee found insufficient evidence that it would do so. In view of the risks, it urged further research and asked for conclusive evidence that changes would not inadvertently discriminate.[42]
Jul 2008	The home secretary asserted that the conclusive evidence sought by the select committee now existed in the form of figures showing that forced marriages peak between ages 18 and 21. The Supreme Court later pointed out that the evidence the select committee asked for was not the typical age of victims of forced marriage but whether raising the visa age would deter the practice.
27th Nov 2008	The home secretary amended the immigration rules to raise the age for a marriage visa from 18 to 21.[43]
12th Oct 2011	The Supreme Court held that in amending the rules without "robust evidence of any substantial deterrent effect … upon *forced* marriages", the home secretary had failed to establish a proportionate response to a pressing social need, thereby invalidating her rule change.

How were government policy and public debate affected?

By going ahead with a rule change that had a serious impact on the human rights of young people, and doing so without an adequate evidence base, government contravened the law and was obliged to retreat. Publication of the Bristol report in 2007 by the Home Office, together with its own critique, would have been an open and productive way of developing policy.

[40] [2011] UKSC 45
[41] Hester, M et al (2007)
[42] House of Commons home affairs select committee (2008)
[43] UK Border Agency (2008)

Case study 9

THE EFFECT OF FRACKING ON HOUSE PRICES

The allegation

According to MPs Barbara Keeley (Labour) and Caroline Lucas (the Green party), and anti-fracking campaigners, the Department for Environment, Food and Rural Affairs (Defra) censored a study examining the effect of shale gas drilling on the rural economy, to remove evidence suggesting that house prices would fall.[44]

Timeline

Dec 2013	Defra received a request to release information on the economics of shale gas under Environmental Information Regulations 2004.[51]
Jun 2014	Request was resubmitted.
Jul 2014	Defra responded to the request by publishing 'Shale Gas Rural Economy Impacts report,' with large sections redacted.
Aug 2014	The *Guardian*,[44] *Daily Mail*[45] and *Telegraph*[46] ran stories criticising the redaction.
8th Jun 2015	Following a contested Freedom of Information request, the Information Commissioner required Defra to publish an unredacted version of the report.[47]
1st Jul 2015	Defra published the unredacted report.[48]

How were government policy and public debate affected?

The present government is committed to expanding fracking for shale gas. It is unlikely that full publication would have altered policy, but it would have allowed greater scrutiny of the potential impacts of this policy.

The public debate about fracking has focused on the risks to health and the environment from the technique, and on the potential economic impacts. Much of the available evidence on risks to health and the environment is from the USA, which differs significantly from the UK geologically and in how fracking is regulated. Nonetheless a review of this evidence by the Royal Society and the Royal Academy of Engineering concluded concluded that "the health, safety and environmental risks can be managed effectively in the UK" and that "seismic risks are low."[49] Despite this evidence being publicly available, media reporting of fracking frequently overstates the known risks and leaves the public ill-informed.[50]

In publishing a redacted version of this study, Defra acknowledged the public interest in the information being published. But it also stated: "there is a strong public interest in withholding the [redacted] information because it is important that officials can consider implications of potential impacts and scenarios around the development of the shale gas industry and to develop options without the risk that disclosure of early thinking, could close down discussion."[51]

Defra failed to acknowledge that the redaction created a void, which was filled by speculation and anecdote in place of evidence, and which made it harder for the public to judge the claims that fracking will benefit the country economically.

[44] Mason, R (2014)
[45] Spencer, B (2014)
[46] Lean, G (2014)
[47] Information Commissioner's Office (2015)
[48] Department for Environment, Food and Rural Affairs (2015)
[49] The Royal Society and the Royal Academy of Engineering (2012)
[50] Sense about Science (2014)
[51] Department for Environment, Food and Rural Affairs (2014b)

Waiting for publication in peer-reviewed journals

3.25   The desire to publish research in peer-reviewed journals can also be a source of difficulty. It has been suggested that researchers may hold reports back for fear that publication by government could compromise future publication by journals.

For instance, **Professor David Coggon from the University of Southampton**, who has chaired or contributed to scientific committees advising numerous departments, said:

"Such situations have been handled on a case by case basis. Findings were reviewed in confidence by independent scientists, who advised on whether they indicated a need for urgent changes to policy or practice. Where it has been necessary to defer publication in this way, an assessment has been made to ensure that the results do not indicate a need for immediate action (eg to protect the health of the public). If there were such a need, steps would be taken to ensure rapid publication (usually journals will give priority in this situation). If this did not happen, the benefit of external peer-review would be lost and many researchers would be deterred from undertaking the research."

It is noted that over the past decade most research publishers have clarified that they accept manuscripts where there has been some prior publication of findings due to regulatory or other requirements.

3.26   Peer review is often fundamentally important to the credibility and validity of the research.

Dr Jonathan Mendel, lecturer at the University of Dundee, said:

"Currently, trials can have major policy impact and receive a lot of media publicity without any adequate publication. This increases the risk of trials with unrealised flaws having policy impact and means that the government can claim that trials indicate policy success (and enjoy media reports stating as much) while there have been inadequate opportunities to critically assess these trials."

3.27   It is not achievable, or compatible with prompt publication of independent research, that all critical discussion be addressed privately first. However, it would clearly not serve the public interest if unreliable research results were rushed out before they were completed and checked. This requirement and the additional time it may take should be considered in the commissioning of research and in any policy planning related to it. This has not been how those discussions about quality and reliability have been handled in some of the cases reported to this inquiry. If there is an unavoidable delay caused by the peer review process or by discussion about research quality, then departments would do better to explain this and to take care not to ask the public to rely on any results they cannot see.

3.28   A number of respondents suggested human reasons for delays in publication of government research, ranging from turnover of staff to lack of confidence. The civil servants charged with receiving and publishing research are not necessarily those who are confident and sufficiently versed in the commission of the research to be able to comment on its validity or to what extent it addresses the policy question.

3.29   Civil servants overseeing research often move on from their posts during projects. Their replacements are, naturally, less confident in communicating the findings of research which they were not involved in commissioning. Continuity between staff might be easier if there was a central directory of research, which would at the least provide information about what had been commissioned and at best stimulate a proper handing over of the research contract and relationship.

Civil servants overseeing research often move on from their posts during projects.

3.30   It has also been suggested that where civil servants are unfamiliar with research methods, this leads to frustrated communications and tensions with researchers, and ultimately to delay in publishing results. There is a great deal of research expertise across government; some of this was exhibited in the insightful responses to this inquiry. But, research is commissioned, overseen, received and communicated by a wide range of personnel.

3.31   The government social research competency framework (an addendum to the civil service code) defines the professional competency for members of the social research profession within government and devolved governments. On reaching grade 5, chief research officer level, a civil servant is expected to have a thorough and detailed knowledge of research methodology and the evidence base in the field of policy they work in and to take responsibility for research publication.

3.32   Government sometimes changes what it wants from the research in the course of the project. For instance, Dr Christian van Stolk of RAND explained that in evaluating a policy impact, departments may change the outcome measures because of changes in government policy moving or staff turnover (mainly in the civil service team directing the research), which can lead to shifting priorities. It can also happen that at the point of publication government changes the format it wants to publish results in, although according to van Stolk it is more usually the case that there has been little thought or discussion about that format until publication is imminent. Such changes to the research protocol can cause tension and delay, which could be avoided if commissioners of research and researchers worked closely at the outset not only to set the research question but to agree publication plans.

Uncertainty over what counts as research and differences in the interpretation of rules

3.33   This inquiry has considered how research, defined as the collection and evaluation of data, is published. It is necessary to bear in mind the distinction between strategic advice, which carries no expectation of publication, and the data and analysis that underpin it and ought ordinarily to come from or be put in the public domain.

Jonathan Portes, said:

"[NIESR does] research on the expectation it will be published. There might be an exemption for strategic advice, but all policy research and programme evaluations should be published."

Dr Sarah Wollaston MP, said:

"Ministers need to ask for strategic advice, but the principle is that public funds pay for research that informs that advice, so should be publicly available."

3.34   It is evident from what the inquiry was told both by members of the research community and by civil servants that there is uncertainty about how evidence supplied by private consultancies is to be handled. Consultants may provide strategic advice but may also conduct research. There is no reason why this should create confusion between research and consultancy, even if there is some room for overlap. Where this might be applicable, civil servants should establish in advance that research findings and strategic advice will be provided in separate reports.

3.35   There is further uncertainty over how other types of research, such as internal fact-finding or evaluation studies, fit into the publication rules. Case Study 9 shows that research into the effect of fracking on house prices was not published because Defra considered it to be an internal report. When it was released in response to an Environmental Information Request it was heavily redacted.

There is uncertainty about how evidence supplied by private consultancies is to be handled.

3.36   Department of Health only considers studies that meet internationally recognised standards as research. This means that consultancy and other forms of external work are excluded from publication rules.

3.37   This dichotomy is reflected in research contracts. It appears that restrictions on what can be published generally only apply to commercially sensitive or personal information, which cannot in principle be objectionable. Witnesses stated that the usual form of words is that permission to publish "shall not be unreasonably withheld".

3.38   Some contracts also restrict the timing of researchers' ability to publish, for instance by asking for a month's prior notice. If a reasonably short time to receive and read commissioned research is specified in advance and does not result in the public being asked to trust a policy based on results it cannot see, this would not, and should not, usually be considered a delay in publication. The acceptability of this short reading time within the definition of prompt publication might address some of the concerns in submissions raised here and in Section 4 about transparency discouraging the commissioning of research in the first place.

3.39   Attention has been drawn to contracts, such as the one in place for the food banks research in Case Study 6, which suggest that departments own the results and can prevent publication without giving reasons. It is unclear whether this is widespread practice and it needs to be clarified that research contracts are subject to overriding principles and protocols regarding publication.

3.40   While pilots and randomised controlled trials are increasingly being used to test policies, some departments and agencies appear reluctant to publish the methods and results. This has created tension, where those inside and outside government who are committed to standards of full and prompt publication face a choice of conducting trials knowing that they may not get published, or insisting on publication with the risk that departments withdraw support for the trials. Researchers wishing to scrutinise the trials sometimes request the data under the Freedom of Information Act as a last resort, but these do not always result in full disclosure and are not a substitute for publication. However, witnesses in this inquiry also said that the 'What Works' collaborations, such as in education, have shown that trial results can be published and handled well.

Section 4

REMEDIES AND RECOMMENDATIONS

Awkward research does get published

4.1   Contrary to the impression created by the behaviour in cases where publication has been delayed, many researchers and civil servants are familiar with strategies that can help government to commission and publish controversial research without fear of how the public or the media might respond. Some examples are described below. These include publishing more information about departmental research, appointing ad hoc committees to oversee research, commissioners and researchers working closely together to set questions and agree on publication timing and process, and allowing the reanalysis of sensitive data. These examples inform the recommendations at the end of this section to improve the visibility and utility of government research.

Publishing more information about government research

4.2   The Department for Environment, Food and Rural Affairs (Defra), Department for International Development, Department for Transport (DfT) and Department of Health have public databases where research is registered and progress to publication is tracked. **There should be a single, publicly searchable database used by all departments** that builds on the most useful features of these departmental systems (Recommendation I). This would enable people to obtain information about planned research as well as to locate and use the reports of completed work.

4.3   Departments might also consider arrangements, such as those used by the Welsh government in its Emerging Findings Reports, to make early research findings or interim findings available, with the necessary caveats about peer review, in certain cases where there is a pressing need for research to contribute to current policy discussions.

4.4   ### Publicly searchable research databases
Defra's Science Search website has a publicly searchable database of all research commissioned from third parties. This is based on what Defra staff, who are civil servants, enter into Omnicom, their internal database for managing all information related to research. Internal quality assurance and audit is undertaken by the Omnicom support team to ensure that Defra research managers and procurement staff are using the database and completing information appropriately. Omnicom is also used as a document repository to help the department track pre-project ideas, procurement documents such as contracts, meeting notes during the live stage of the project, and reports.

4.5   Omnicom allows the department to review its whole research landscape. Intended publication date is, however, not a field in the system, although start and finish dates are — all deliverables are to be finalised by finish date, after which peer review and other quality assurance activities start.

4.6   ### Mapping research on to government policy
It was formerly the practice that government departments would publish a projection that showed what research was planned over the coming year, along the lines of the Home Office's research programme. This practice appears to have largely ended following uncertainty over departmental research budgets in 2010. Publishing a forward look would enable other sectors and departments, the research community, parliament and the public to see planned research alongside the government's policy priorities. The Welsh government's Forthcoming Publications web page continues to fulfill this function.

4.7   **Although policy often moves faster than research, this does not mean that the public cannot scrutinise the extant evidence base.** The Welsh government has developed Emerging Findings Reports, which they ask researchers and departments to prepare when an urgent policy announcement needs to be made before full research findings are available.

Ensuring the independent commissioning and publication of government research

4.8 A number of individuals giving evidence to this inquiry warned that a blanket call for all government-commissioned research to be openly published might chill policymakers' willingness to commission research. This does not appear to have been the case where a research register is in operation, eg at Defra, and all research is tracked in public view.

4.9 It has been suggested that one way to alleviate the pressures on the commissioning and publication of government research would be to separate the analytical and policymaking functions of every department.

Jonathan Portes, National Institute of Economic and Social Research, said:

"If you tell ministers that research will automatically be published on a fixed timetable with no scope for delays or interference, then (with honourable exceptions) they will commission much less of it or none. And in current budgetary circumstances there will be no particular penalty for this. This tradeoff simply cannot be resolved, except by making the commissioning of research independent... it's generally recognised internationally, and is the reason that the IMF and World Bank, say, have strong, constitutionally independent evaluation offices. The UK needs the same, for each major department (there could be some grouping) with independent heads, not from government, some protection of budgets (at least three or five year budgets), the freedom to evaluate what they see fit and publish the results, and a direct reporting line to Commons departmental committees (à la NAO [National Audit Office]). There is nothing particularly radical, complicated, or difficult about any of this, except that ministers wouldn't like it."

4.10 There is some support for the principle of separating research from policymaking amongst members of the research community, civil servants and politicians, but these proposals raise the question of who would then commission the research. Such a separation might also bring into question the relationship between policymakers who commission research and academics carrying it out and indeed it might itself have the effect of reducing politicians' interest in commissioning and paying for research.

4.11 Another suggestion made to this inquiry was that researchers could report directly to parliament. It is understood that the former head of what was then the Home Office Research Unit concluded in the 1950s that this should be the norm, so as to preserve the independence of research. While both of the suggestions above are worthy of consideration, they imply an unlikely major overhaul of a system that could meet publication requirements much more simply.

Appointing ad hoc committees

4.12 Appointing ad hoc committees to oversee potentially difficult research can be especially useful, because it allows government to point to independent evidence and to set out its policy response separately. Here are some examples:

4.13 ### Biofuels and food crops

In April 2008, the government's Renewable Transport Fuel Obligation committed the UK to ensuring that biofuels make up 2.5% by volume of road transport fuel sales, increasing by 1.25% a year to 5% by 2010/11. This was a result of an EU Directive in 2003 promoting the use of biofuels.

4.14   Evidence had emerged that raised "concern about the role of biofuels in rising food prices, accelerating deforestation and doubts about the climate benefits." In February 2008, a paper by Searchinger et al in *Science* suggested that in the US, biofuels caused land use changes that led to increased net emissions of greenhouse gases.[52] This prompted the chief scientists of Defra and DfT to commission a review of the evidence behind the policy of increasing biofuel use and its indirect effects, and whether there should be a moratorium.

4.15   The review was chaired by Professor Ed Gallagher, chair of the Renewable Fuels Agency (the independent agency created to implement the policy). It concluded that while there was no need for a moratorium and that "there is a future for a sustainable biofuels industry," the rate of increase in the use of biofuels should be reduced to avoid agricultural land being displaced.

4.16   Because the UK was committed to a rapid increase in the use of biofuels, and because the impact on food crops was controversial, the research and recommendations could have been awkward for the government. It appears that, because of a collaborative effort between researchers and civil servants to ensure that counter-evidence and uncertainty were properly addressed during the research, it was possible to publish the final report within six months of the research being commissioned.

4.17   ### The effect of mobile phones on health

Media stories and campaign groups claimed that mobile phones and transmitter masts were causing cancer, despite a balance of scientific evidence to the contrary. An independent expert group on mobile phones had concluded in 2000 that although mobile phones and transmitters are unlikely to cause disease, further research was required to address possible biological effects of low-level radiofrequency radiation. The Mobile Telecommunications and Health Research (MTHR) programme was set up in 2001 to commission and oversee this research, jointly funded by government and the mobile phone industry.

4.18   The MTHR's research spanned 11 years, and concluded that there was no association between mobile phone use and cancer. The MTHR's committee was effective in commissioning controversial and complex research and communicating it to the public. The interposing of an independent committee helped government to publish reliable research in a framework that was recognised by commentators as independent.

4.19   ### The Depleted Uranium Oversight Board

The Ministry of Defence set up this independent board to oversee the development of a laboratory test to check for exposure to depleted uranium (DU) amongst veterans of the Gulf War and other conflicts in the early 1990s. The board included established scientists, veterans' groups and campaigners, to ensure that a broad range of views was considered. It concluded that there was no detectable exposure to DU. The research was published without delay, alongside a minority review that questioned the validity of the test.

Research commissioners and researchers working together to set questions and agree on publication

4.20   ### Organisational preparedness for unconventional terrorist attacks

Research into how prepared public and private organisations are to respond to chemical, biological, radiological or nuclear terrorist incidents has been published promptly and in full, notwithstanding concerns that the findings or even the questions could be seen as identifying weaknesses in national security. Researchers, civil servants and other stakeholders met to discuss the questions to be asked, research methods and ways to communicate findings to the public. Such events appear to help build trust between academics and those commissioning research.

[52] Searchinger, T et al (2008)

Allowing reanalysis of sensitive data

4.21   HM Revenue & Customs' Data Lab and the Department for Education's National Pupil Database give approved researchers access to sensitive data, which the researchers can then analyse and publish. The Education Endowment Foundation publishes in a way that allows researchers to reanalyse the results from their trials. Such systems ensure that personally sensitive data can be used.

Principles and recommendations

4.22   In the light of the material summarised in this report, the following broad principles are commended:

1.   Prompt and full publication of government research is a matter not of contract but of public duty. While research contracts will necessarily vary in their provisions, all contracts should spell out this obligation of principle, which reflects the departmental rules governing external research.

2.   No redactions should be made in published research except for verifiable legal or security reasons such as data protection or national security.

3.   Save in wholly exceptional circumstances, publication of external research should precede or, at latest, accompany promulgation of any policy initiative which is presented as dependent on it, or which clearly is intended to be.

4.   Conflict with current or impending policy initiatives is not an acceptable reason for delaying or withholding publication of external research. In such situations government should be prepared to publish its reasons for disagreement and let any debate be aired in public.

5.   Government and researchers should adopt more of the practices described in the preceding paragraphs in commissioning, conducting and communicating problematical research.

4.23   The recommendations that follow seek to avoid any measures that would inhibit ministers and civil servants from commissioning in the first place research into politically sensitive issues or research that might generate awkward findings. Even so, it is recognised that there will be occasional research that cannot be published (or cannot be published in full), for example for reasons of national security.

Recommendation I	A standardised central register of all externally commissioned government research

Building on existing departmental research databases, the government should institute a system in which:

(a)   A searchable list of commissioned external research is published and maintained, including: who is commissioning and conducting the research, what is being measured, what methods are being used and what outcomes are expected; and a timetable for completion, peer review and publication of the research.

(b)   Each study has a unique identifier that conforms to open data standards, so that any amendments to these fields during the course of the research can be tracked and will be accompanied by an explanation, is linked to associated data sets and is associated with comprehensive meta data. Consideration should be given to these issues in future discussions about detail of a register of research.

Prompt and full publication of government research is a matter not of contract but of public duty.

In addition:

(c)   Such a register would enable departments to announce what they plan to publish in the coming months.

(d)   Ministers should arrange for parliament to be told, for example by placing the information in the libraries of the House of Commons and the House of Lords, what research has been commissioned in each quarter and what research has been received and published.

Consultation suggests that the function of maintaining a central register would be most appropriately undertaken by, or under the auspices of, the Cabinet Office.

From the perspective of this inquiry, the benefits of a register would be:

* Public clarity on policy issues and accountability for public funds;

* Improvements in the tracking and prompt publication of research;

* Availability of research to the overall research base; and

* Confidence in the system of undertaking research for government among independent research organisations.

A register should therefore include all research conducted by independent organisations, and any research that is conducted by arm's length bodies and other directly employed agencies, which government might wish the public to view as objective and independent.

The submissions to this inquiry, and indeed the frustration expressed by people in government departments who struggled to provide us with information about the extent to which research is published promptly, show that a register of commissioned research would provide a range of benefits to government itself, and to those who work with government, including:

* Cost saving by avoiding repetition;

* Cost saving through increased use of existing resources for policymaking;

* Cost effectiveness through improved and combined use of research findings;

* Organisational memory;

* Improving the methods and data of the existing knowledge base when undertaking new research;

* Cross-departmental coordination and sharing of resources.

A more comprehensive register would ensure that government obtains these benefits too.

Recommendation II — Clarity on what constitutes externally commissioned government research

To give practical effect to the distinction spelled out in paragraph 2.3 joint guidance should be issued by government's heads of analysis. This would explain for the benefit of all departments how to separate research from advice, especially when both feature in the same document, in order to ensure the prompt publication of the former.

Recommendation III — A clear commitment to prompt publication in research contracts

While contracts will necessarily vary in their provisions, all research contracts need to acknowledge that, as rules and protocols recognise, prompt and full publication of government research is the norm.

Recommendation IV   Routine publication of research the government has considered in policy formulation, with, if appropriate, reasons for rejecting it

When publishing policy, government departments should provide a reference and relevant links to research evidence that has been considered, and, if the policy conflicts with the evidence, a note explaining why the evidence was rejected.

Where research is considered to be substandard, publication may be delayed for long enough to have it independently assessed. If poor quality is confirmed, the default position should be publication with a critique.

Where policy runs ahead of research, interim research findings should where practicable be published.

External research, when submitted, should be promptly made accessible online by the department or agency commissioning it. This should be noted on any register. Future publication in, for example, specialist journals should not be regarded as a substitute for prompt online access where a final report has been made to the government.

Recommendation V   A clear statement of the current requirements for prompt publication and adherence to them

Discrepancies between the understanding and practices of different departments, and within departments, have recurred throughout the evidence heard and submitted to this inquiry. Ministers should be asked to confirm that their departments understand and adhere to the current rules, outlined in Section 2, regarding prompt publication of third party research. Ideally one set of rules and principles should be applicable across all of government, but at the very least departments should be directed to submit any additional guidelines they have produced to internal and external scrutiny and approval to ensure adherence to these rules and principles.

Recommendation VI   Training in research for policy communicators

A programme of training and briefing should be established as part of the induction of ministers, special advisers and communications officials to cover the rules regarding publication of commissioned research and, in some cases, training in how to handle research communication confidently and openly in a political context.

While there is considerable research experience in government, this is not necessarily deployed in the communication of research, which is often undertaken by those with a more political role or who are more concerned with communication and negative publicity. Furthermore, there seems to be little sharing or appreciation across government of those cases where departments have handled research publication well and engaged in a respectful and open discussion with the public, and how this has been achieved.

Greater cross-departmental sharing of research communication experiences should be established. This might be achieved through the existing departmental heads of analysis or another body.

AFTERWORD
by Tracey Brown

The findings of Sir Stephen's inquiry may reassure some people: it seems there isn't evidence that research is frequently withheld from public discussion. There are rules that stipulate prompt publication and there are times when difficult (read politically awkward) research is published and handled well. Some positive points that we can hang onto along the challenging road ahead.

Sir Stephen set out to investigate suppression but found weak rules and chaotic systems.

But we should not be reassured, we should be alarmed. Sir Stephen set out to investigate suppression but found weak rules and chaotic systems. It turns out that we don't know what has become of millions of pounds of government-commissioned research. Government itself doesn't know: some departments have no idea how much research they have commissioned, whether it was published, or where it all is now.

Just as alarming is the alacrity with which some parts of government put up apparently insurmountable obstacles to doing things that their peers in others manage without a problem. The sky has not fallen in at departments that maintain a research register. They continue to commission research, with the advantage of then knowing whether it's been published — and where it is.

Sense about Science spoke with the Cabinet Office and others about including a register in transparency plans when Sir Stephen first explored it early in the inquiry. We will respond to his recommendations by pressing firmly and publicly for it.

A register, along with the recommended clearer contracts and rules about publication, will give the public confidence that information isn't being kept from them and give researchers confidence in working with government.

What of political manoeuvring? Sir Stephen says of course it influences publication of research, but he has cast it in a new light. When research isn't published, it is not the confidence of the special advisers and political communicators winning through, but rather their lack of confidence. So the report advocates a smarter approach to communicating research in a political context. I'm so glad about this. Sense about Science works with the widest range of public groups on the most difficult issues. We find it puzzling that policy makers go in search of public trust and confidence — which is often why they commission independent research in the first place — and yet won't trust the public with a discussion about the findings.

I'm sure they don't want to be in that position, and anyhow transparency is here to stay. This is an opportunity not only to recover millions of pounds of wasted research but to give politicians the out they need — publish or be damned.

Tracey Brown is the director of Sense about Science
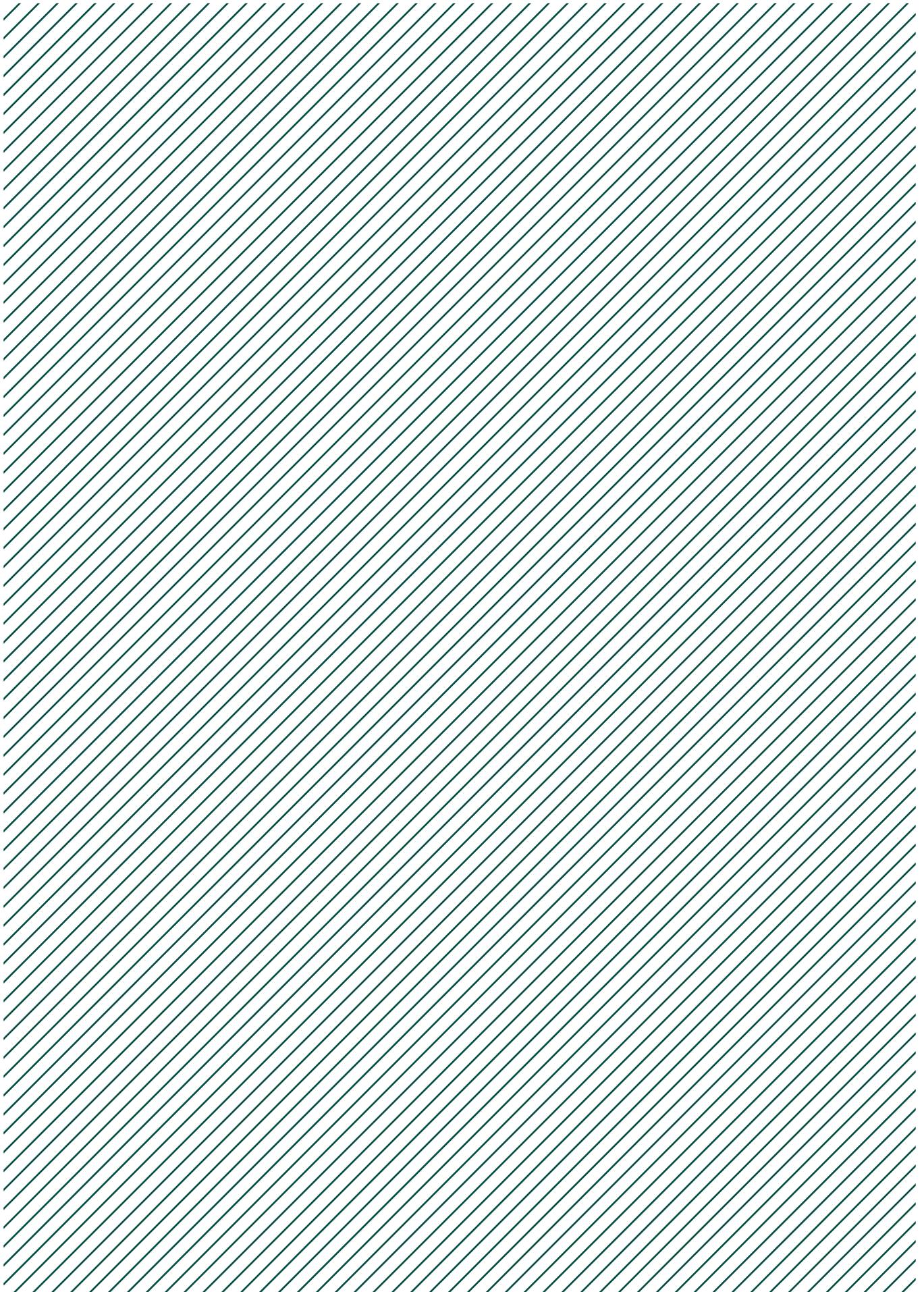
Appendix I

INQUIRY METHODS AND CALL FOR EVIDENCE

Inquiry methods

The Rt Hon Sir Stephen Sedley, who is leading the inquiry, is a privy counsellor and former Lord Justice of Appeal. He has served as an ad hoc judge of the European Court of Human Rights and has been a visiting professor at the University of Oxford. He is a trustee of Sense about Science.

The report has been researched and co-authored by Dr Prateek Buch, policy associate and Dr Síle Lane, director of campaigns and policy at Sense about Science.

Initial consultations with members of the research community, civil servants, and politicians helped us to frame the inquiry's call for evidence (see below), which we issued in November 2015. We invited written submissions and interviewed interested parties to gather evidence.

We have benefited greatly from the written submissions, oral contributions and advice from the people listed in Appendix II, but the content of this report is the responsibility of its authors.

The inquiry and the production of this report were supported by a grant from the JRSST Charitable Trust (Registered Charity No: 247498) and by Nick Ross.

Call for evidence

Tuesday 24th November 2015

Sense about Science is seeking information and views about how government commissions and publishes research from the academic community, professional bodies, the civil service, charities, the media and other interested parties.

Research conducted or commissioned by central government is an important part of guiding, developing, modifying and monitoring policy. Although departmental guidelines require prompt and complete publication of such research, there have been repeated allegations in recent years of publication being held back.

This has raised public concerns for a number of reasons:

- Failure to make publicly-funded research available to the public.

- A lack of transparency on the basis of government decisions and the role of evidence in reaching them.

- Potential effects on the willingness of researchers to assist in policymaking.

It is not known how significant or widespread the delayed publication or withholding of government research is, and there is little comparative evidence of how different departments or agencies behave. There will also be examples of good practice, for instance where potentially awkward research has been published promptly.

Sense about Science is conducting an inquiry, to be led by one of its trustees, the Rt Hon Sir Stephen Sedley, into the scale and sources of the problem, and into possible remedies. An initial scoping exercise was conducted between 18th September and 30th October 2015 to establish this call for evidence.

The inquiry will consider the publication of research, including analyses of official statistics, initiated by Whitehall departments and the arm's length bodies that report to them. We also welcome submissions relating to devolved administrations, but not to local authorities. The inquiry will consider what has happened in established instances of research being held back, and will suggest how controversial or inconclusive research can be handled.

We invite submissions about your experience of commissioning, conducting, publishing or accessing government research, particularly in the following contexts:

1 **Contracts and rules:** do research contracts make publication principles clear? Are these principles ethically and legally appropriate? Who is responsible within departments for ensuring that research is published promptly and fully?

2 **Expectations of publication:** these vary, especially as regards the timing of the announcement of policy and in relation to controversial topics. What justifications may there be for delaying or withholding publication of government-commissioned research?

3 **Potential improvements:** what changes would improve the way government commissions, conducts and publishes research? How can good practice be spread?

Appendix II

LIST OF CONTRIBUTORS

We have had the benefit of written submissions, oral discussions and advice from the following people. With the authors' permission, written submissions are published in full at **www.researchinquiry.org/submissions**

Richard Bartholomew	Former joint head of government social research
Professor Sir John Beddington	Professor of applied population biology, Imperial College London; senior adviser, Oxford Martin School, University of Oxford; former government chief scientific adviser
Professor Virginia Berridge	Professor of history and director, Centre for History in Public Health, London School of Hygiene and Tropical Medicine (written submission)
Nicola Blackwood MP	Chair, House of Commons science and technology select committee
Sir Iain Chalmers	Coordinator, James Lind **Initiative**; founding member of Cochrane Collaboration and Campbell Collaboration
Professor David Coggon	Professor of occupational and environmental medicine, University of Southampton
Tim Colbourne	Director of policy, Open Reason; former special adviser and deputy chief of staff to deputy prime minister Nick Clegg MP
Professor Brian S Collins	Professor of engineering policy and director, International Centre for Infrastructure Futures, UCL; former chief scientific adviser, Department of Business Innovation and Skills and Department for Transport
Professor Dame Sally Davies	Chief medical officer for England, Department of Health; emeritus professor, Imperial College London
Fiona Fox	Chief executive, Science Media Centre (written submission)
Dr Emma Gordon	Head of government economic and social research, Treasury
Dr Michael Hallsworth	Director, health & tax, Behavioural Insights Team
Deborah Hargreaves	Director, High Pay Centre; chaired High Pay Commission
Rod Harrison	Senior principal research officer, Scottish government
Professor Marianne Hester	Professor of gender, violence & international policy, University of Bristol
Rt Hon Patricia Hewitt	Former MP and secretary of state for health
Ed Humpherson	Head of assessment, UK Statistics Authority
Dr Julian Huppert	Former MP
Dr Eric Jensen	Associate professor, University of Warwick
Professor Lord Krebs	Emeritus professor of zoology and former principal, Jesus College, University of Oxford
Dr Daniel Lambauer	Director for value for money development, National Audit Office
Rt Hon David Laws	Former MP, minister of state for schools, minister of state for Cabinet Office and chief secretary to the Treasury; executive chairman, CentreForum

Dr Tim Leunig	Chief scientific adviser, Department for Education
Sofia Lind	Senior journalist, *Pulse*
Catherine Luckin	Head of international, Academy of Medical Sciences
Simon Luker	Department for Environment, Food and Rural Affairs
Dr Audrey MacDougall	Chief researcher and head of Education Analytical Services Division, Scottish government
Dr Steven Marshall	Chief social research officer, Welsh government
Dr Jonathan Mendel	Lecturer, University of Dundee (written submission)
Andrew Miller	Former MP and chair of the House of Commons science and technology select committee
Rachel Muckle	Social scientist and research programme manager, Department for Environment, Food and Rural Affairs
Dr Kathryn Oliver	Departmental lecturer in evidence-based social intervention and policy evaluation, University of Oxford
Nicola Perrin	Head of policy, Wellcome Trust
Vicky Petrie	Head of research, Department for Education
Jonathan Portes	Principal research fellow (former director), National Institute of Economic and Social Research; former chief economist, Cabinet Office & Number 10 Downing Street (written submission)
Nigel Praities	Editor, *Pulse*
Becky Purvis	Head of public affairs, Royal Society
Sir Venki Ramakrishnan	President of the Royal Society (written submission)
Dr Brooke Rogers	Reader in risk and terror, Kings College London
Steve Rolles	Senior policy analyst, Transform Drug Policy Foundation
Jill Rutter	Programme director, Institute for Government
Dr Michael Sanders	Chief scientist and head of research and evaluation, Behavioural Insights Team; post-doctoral research fellow, Harvard Kennedy School of Government; research associate, Centre for Market and Public Organisation, University of Bristol
Professor Sir Nigel Shadbolt	Principal of Jesus College, Oxford; professor of computer science, University of Oxford; chairman of the Open Data Institute
Dr Andrew Steele	Co-founder, Scienceogram; post-doctoral researcher, Francis Crick Institute
Dr Christian van Stolk	Director, RAND Europe
Professor Roger Tarling	University of Surrey; former head of the Home Office Research and Planning Unit

Dr Suzanne Taylor	Research fellow, London School of Hygiene and Tropical Medicine (written submission)
Jane Tinkler	Head of social science, Parliamentary Office of Science and Technology
Dr Arnaud Vaganay	Research associate, London School of Economics and Political Science
David Walker	Former head of policy, Academy of Social Sciences (written submission)
Professor Sir Mark Walport	Government chief scientific adviser, Government Office for Science (written submission); honorary distinguished professor of medicine, Imperial College London
Professor Jeremy Watson	Professor of engineering systems and vice-dean, Faculty of Engineering Sciences, UCL; chief scientist and engineer, Building Research Establishment; former chief scientific adviser, Department for Communities and Local Government
Naomi Weir	Assistant director, Campaign for Science and Engineering
Professor James Wilsdon	Professor of research policy, Department of Politics and director of impact and engagement, Faculty of Social Sciences, University of Sheffield
Dr Sarah Wollaston MP	Chair of the House of Commons health select committee

Appendix III

FREEDOM OF INFORMATION REQUESTS

We requested the following information from 24 UK ministerial departments and from two executive agencies (Public Health England and the Environment Agency) under the Freedom of Information Act 2000:

1   Details of all research studies commissioned by [the department/agency] between July 2013 and July 2015, including title, date the study was commissioned, who was commissioned to carry out the study, and when and where the results were published.

2   A summary of how many research studies were carried out or commissioned by [the department/agency] between July 2013 and July 2015, and how many remain unpublished as of July 2015.

3   A statement of how complete [the department/agency]'s publicly available databases of research studies are, by summarizing the details of all research studies that have been commissioned but are not registered on the databases.

For details of departmental responses see Table 1, p 14.

Appendix IV

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Sense about Science is an independent campaigning charity that challenges the misrepresentation of science and scientific evidence in public life. We advocate openness and honesty about research findings, and work to ensure the public interest in sound science and evidence is represented and recognised in public discussion and policymaking.

Sense about Science is a small team working with thousands of supporters, from world-leading researchers to community groups.

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PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0266
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

It is absolutely not the business of the federal government to compile records on its citizens, cradle to grave, or even higher education to employer. The security risks are far too great and protection from further privacy infringement must be maintained.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0267
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

Please see the attached document with AGA's comments in response to the Request For Comments for the Commission on Evidence-Based Policymaking -- Docket - 160907825-6825-01. We would be pleased to respond to any questions you have regarding our submission. Thank You, Ann Ebberts, CEO, Association of Government Accountants (AGA)

Attachments

AGA_Response_CEP_Dec14

![AGA logo]

December 14, 2016

To the Members of the Commission on Evidence-Based Policymaking:

Reference: Request for Comments - Docket Number 160907825-6825-01

The Association of Government Accountants (AGA) is pleased to offer this response to the Commission on Evidence-Based Policymaking's September 14, 2016 Request for Comments (Docket Number 160907825-6825-01).

The Evidence-Based Policymaking Commission Act of 2016 (Public Law Number 114-140) requires the Commission to:

(1) determine the optimal arrangement for which administrative data on Federal programs and tax expenditures, survey data, and related statistical data series may be integrated and made available to facilitate program evaluation, continuous improvement, policy-relevant research, and cost-benefit analyses by qualified researchers and institutions while weighing how integration might lead to the intentional or unintentional access, breach, or release of personally-identifiable information or records;

(2) make recommendations on how data infrastructure, database security, and statistical protocols should be modified to best fulfill the objectives identified in paragraph (1); and

(3) make recommendations on how best to incorporate outcomes measurement, institutionalize randomized controlled trials, and rigorous impact analysis into program design.

AGA, founded in 1950, with its 15,000 members representing financial management professionals from federal, state and local governments, higher education, and the private sector, is the premier association for advancing government accountability and fiscal transparency. AGA fosters learning, certification, thought leadership and collaboration for professionals and stakeholders committed to advancing government accountability. It is the direct relationship of our mission to the objectives of the Commission on Evidence-Based Policymaking, that makes your efforts here so important to us.

We applaud Congress, the President, and members of the Commission for their interest in, and commitment to, expanding the availability and use of evidence in decision making designed to improve the government's performance and efficiency. The members of AGA have expertise not only in finance and accounting, but in the panoply of capabilities relevant to the Commission's mission.

As the Commission considers recommendations to improve the availability, access, and use of data to improve program performance, we hope you will strongly consider greater integration of cost information in your work. Without accurate cost information at every level of program evaluation, the usefulness of study results will be greatly diminished. An evaluation that demonstrates a program's effectiveness is of little value if it does not also show the cost of achieving the program's outcomes. Moreover, an evaluation designed to highlight ways to improve a program's operation, informed by factors and/or elements that drive cost, enable decision makers to apply scarce resources and make the tough choices to fund the most critical

and impactful programs to benefit our citizens. These concepts are embodied explicitly in the Commission's charge to recommend ways to facilitate "cost-benefit analyses."

As the Commission looks for ways to unlock the treasure trove of data already collected by the government, one obvious source is the financial data agencies report today. The Federal Accounting Standards Advisory Board (FASAB) issues federal financial accounting standards and provides guidance after considering the needs of external and internal users of federal financial information. One such standard is Federal Financial Accounting Standards Number 4, called Managerial Cost Accounting Concepts and Standards for the Federal Government, which FASAB issued first in 1995. The standard is "aimed at providing reliable and timely information on the full cost of federal programs, their activities, and outputs." It further states that cost information "can be used by the Congress and federal executives in making decisions about allocating federal resources, authorizing and modifying programs, and evaluating program performance" and "can also be used by program managers in making managerial decisions to improve operating economy and efficiency."

There are several ways that cost information could be useful as a component of program evaluation:

- Program level: Cost information can be used to measure efficiency and cost effectiveness for overall program results. This can include developing unit cost information for key outputs for efficiency, such as the cost per participant in a program. In addition, cost information can be associated with overall program performance measures to indicate program cost effectiveness, such as showing cost per successful outcome (e.g., cost per student that achieves the desired outcome).
- Process/activity level: In addition to supporting program level evaluation, cost information can be developed at the process or activity level to measure the efficiency of individual processes and activities that are performed as part of program delivery. For example, cost information can be used to measure the efficiency of processing applications, reviewing and approving grants, and financial management.
- Direct v. overhead/administrative: Cost information can also be developed to measure the direct cost of program delivery as well as the associated overhead and support cost. This provides insight into the relative proportion of direct and overhead/administrative costs to determine if it is being managed in an efficient manner.
- Budgeting: Once the cost information has been developed and associated with the appropriate performance measures, this information can be used to estimate the potential changes in program costs if certain variables were to change, such as overall program participation or changes in performance levels.
- Trend analysis: If the appropriate cost information is developed and refreshed on a regular basis, the cost information can be used to assess trends regarding improvements in program efficiency and cost effectiveness.
- Benchmarking: Where feasible, the cost efficiency and effectiveness measures can be used to assess program performance relative to similar programs at any level of government, or in the commercial or nonprofit sectors. The goal here is not necessarily to compete, but to identify those characteristics (e.g., process, inputs) that contribute to the most efficient or most effective unit, or possibly the greatest quality unit.

Though the standard does not recommend a specific cost accounting methodology, it identifies several methodologies that could enhance *insights into the cost of programs*. One of those methodologies, activity-based costing, identifies activities in an organization and assigns their cost to the outcomes or outputs that consume them.

Activity-based costing is a proven, rigorous method for measuring and reducing cost. Some of the benefits of activity-based costing include, but are not limited to:

- Identification of more accurate cost information through direct tracing of costs or using cause and effect relationships to assign costs;
- Insight into cost information for various dimensions (activity/process, output/service, organization, or program) so that cost information can be associated with performance measures for different levels/dimensions; and
- The ability to measure effectiveness/efficiency of process/activities as well as outputs and services.

Project or job order costing is another costing methodology that could be appropriate in program evaluations for specific grants/projects. It assesses the cost of an entire project, which is then associated with its performance measures.

Federal Financial Accounting Standards Number 4 sets important cost reporting requirements for federal entities. The cost information they report pursuant to this requirement is included in each agency's audited financial statements. Unfortunately, the cost information reported in agency financial statements is not uniformly useful in assessing the cost or cost effectiveness of *programs across government*. The Commission, through its efforts to increase the availability and use of government data in support of evidence-building activities related to government programs and policies, has an opportunity to reinforce this requirement, but it also risks duplicating or diminishing its impact. Recommending new and different cost reporting requirements, for instance, would dilute the importance and quality of cost information that is reported today. AGA recommends the Commission point out in its final report cost information currently reported by agencies and what actions they need to take to ensure it is useful in building the body of evidence of program or activity cost effectiveness.

With respect to the questions specifically listed under Overarching Questions (1-2), Data Infrastructure and Access (3-14), and Data Use in Program Design, Management, Research, Evaluation and Analysis (15-19), AGA suggests, that, in general:

a) program improvements, innovation, transformation, and informed policy and decision making will be enabled by data sharing across agencies
b) sharing program data across agencies, especially in the cases where duplication of effort has already been identified by GAO, may help inform decisions regarding the continuation or cessation of such programs, and help to determine the degree of program duplication or program uniqueness
c) neither privacy (personally identifiable information) nor secure data should be provided to the public on transparency websites
d) planned program and project spending transparency mandated by the DATA Act (Public Law Number 113-101), will be enhanced and made more valuable when supported by evidentiary data

e) data resulting from surveys and/or studies, should be linked (or referenced) to detailed study methodology information, so that the user of the data will be informed and potentially able to address any limitations or conditions of the data

f) other public sector entities (i.e. state/local governments) and the private sector may be able to leverage study data to innovate and improve programs of a similar nature

g) academic institutions may leverage publicly available data to experiment and innovate, perhaps through classroom competitions and/or graduate program studies

h) data resulting from survey/data collection efforts, paid for by the taxpayers, should be made available for research and additional study by not-for-profits, who may not have the funding to conduct such studies, but might benefit the communities they serve by having access to data.

i) enterprise risk management initiatives, currently required by OMB policy, provide an excellent opportunity to integrate rigorous evidence into monitoring and managing risks to accomplishment of agency missions.

In conclusion, AGA strongly encourages the Commission, in its final recommendations, to include *integration and strengthening of the availability of cost information in agency reporting and program evaluations*. Without cost information, what we find out about program performance through research, studies, and analysis of survey data, will be significantly less useful to policy makers and agency decision makers.

Should you wish to discuss our insights in this or any other area relevant to the Commission's work, please do not hesitate to contact me directly.

Sincerely,

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PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0268
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

Stop amassing data and dossier building on Americans! We need LESS government programs, not more. Few people trust that the government will protect Americans' privacy or that the data will be secure. Many Americans understand that BIG data is the new gold rush and we're sick of the public sector ballooning off the backs of hard-working tax payers. For instance, the massive amount of data being extracted from school children currently is unconscionable! Obama gutting FERPA to make that data available to "researchers" without knowledge or consent of parents is the creepy norm, not the exception. Corporations reaping windfall profits off the backs of small, innocent children's data is the norm, not the exception. STOP! Few Americans believe that our personal business is any business of the government and even fewer believe that the government has the personal best for individual Americans at heart. The public sector today serves and protects ITSELF and abuses the hand that feeds it. Government needs to shrink and its workforce must be gutted. NO to data amassing on Americans. NO to needing a "commission" on "evidence-based policymaking. NO to the notion of "evidence-based policymaking." NO to giving government more power and the means to abuse the hands that feed it!!!

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0269
Comment on FR Doc # 2016-22002

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General Comment

I hold an MD and PhD (Health Economics) and work as a physician-researcher at Massachusetts General Hospital. I have broad experience in evidence-based policymaking, both as a consumer of evidence and as a researcher who generates evidence. I will focus my reply on questions 16-19.

In the last 20 years, there have been revolutionary developments in statistical techniques, data availability, and computing power, all of which have enabled detailed, valid, and (statistically and politically) unbiased assessments of the impacts of public sector programs. The Commission on Evidence-Based Policymaking can play an important role in leveraging these trends towards the improvement of public policy by (1) making large federal and state databases more readily available (including identification of local geographies), (2) working closely with government, private sector, and academic partners with expertise in theoretical and statistical techniques that leverage "natural experiment" approaches, (3) and advocating for the rollout of programs in a manner that supports rigorous evaluation.

With specific regards to points (2) and (3), ideally policy evaluation should be build into program design whenever possible. This could be done in a number of ways. A likely scenario is where program budgets do not support a initial full rollout. In this case, the initial roll-out could be randomized across beneficiaries or locations, who would go on to receive benefits as the program grows in size. This allows for the ability to assess program impacts across individuals or locations who are otherwise similar, but some of whom randomly received the program on the account of initial constraints. Such a study design has far greater validity than simple pre-post program comparisons (as other factors could have changed over time, biasing the results). Another likely scenario is where a program has a sharp eligibility threshold. Dedicated data collection of people who are just on either side of the threshold - who are otherwise similar but of whom some received program benefits - allows for a robust natural experiment that is typically free from bias. These wait-list and threshold based designs have been used successfully in the evaluation of Medicaid expansions in Oregon and charter school policies in Massachusetts, among other examples.

Randomized controlled trials and quasi-experimental designs (such as regression discontinuity or differences-in-differences) should serve as the sole bedrock of program evaluation. A scientific revolution in statistics and econometrics has repeatedly demonstrated the superiority of such methods over anecdotes, pre-post comparisons, or typical observational study designs like cross-sectional regression. It is possible create an infrastructure where program design is informed in real time by ongoing policy experiments, with iterative experimentation. Specifically, small randomized trials can inform elements of program design, with the design building in opportunities for additional trials or quasi-experiments. This "real-time" research has the benefit of generating immediately useful short run policy information and, since it is part of the initial program rollout, can be done with minimal additional cost. Underlying this edifice would be the incorporation of a structure that allows for a longer-term evaluation of the program. Such a priori long-term designs can be creatively leveraged by members of the Commission and their associated teams, and partner agencies and researchers.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0270
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I oppose non-consensual data mining. Informed consent is key to our liberty. Please stop this assault on our freedom.

PUBLIC SUBMISSION

As of: August 04, 2017
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Submission Type: Web

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0271
Comment on FR Doc # 2016-22002

Submitter Information

Name: Dana Fortson

General Comment

Repeal Common Core Standards and data mining! Stop using our children as a way for big business to make money. The Government has no right to my child's information.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0272
Comment on FR Doc # 2016-22002

Submitter Information

Name: Rep. Justin Fawson Utah House District 7

General Comment

The de-identification of student information should be treated identically to HIPAA. Requiring parents to consent to student information tracking in order for their student to participate in the curriculum flies in the face of the fundamental purpose of our education system.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0273
Comment on FR Doc # 2016-22002

Submitter Information

Name: Missy T

General Comment

I believe in informed consent and my God given civil rights, signed by our forefathers that this is still a free country, The United States of America. I oppose non-consensual data mining and if I choose that I don't want to share my families information in any way, shape or form that you halt immediately, otherwise, suffer the consequences accordingly!

PUBLIC SUBMISSION

As of: August 04, 2017
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Submission Type: Web

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0274
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I oppose data mining without my consent. I oppose data mining. Period. These are MY children, not yours. They don't get tested and gathered like a lab rat. Enough is enough. Give me my freedom back and get out of my children's lives and my family's life.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0275
Comment on FR Doc # 2016-22002

Submitter Information

Name: Coretha Rozendaal
Address:
  Monroe, IA, 50170
Email: Corkjoy@juno.com

General Comment

I believe in informed consent. I oppose non-consensual data mining. Stop this madness!

PUBLIC SUBMISSION

As of: August 04, 2017
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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0276
Comment on FR Doc # 2016-22002

Submitter Information

Name: Hank Hank

General Comment

This issue should be a mute point. We have an amendment that completely disallows non-consensual probing of our children known as the Hatch Amendment.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0277
Comment on FR Doc # 2016-22002

Submitter Information

Name: Wendy Hart

General Comment

I am opposed to allowing greater data access. Children's data needs to be properly overseen and managed by their parents. Even in medicine, these children's data would only be allowed to be used in research with the informed consent of their parent or guardian. But in education, why do we feel that it is any less invasive? In fact, it has the potential to pigeon-hole children from an early age and limit their future possibilities. We live in an age where, for the first time in history, people who have never seen, spoken with, or cared about a particular child, will be able to know vast amounts of information about them and make decisions about them without the benefit of their parents as gate-keepers. In the past, parents were the only source of the vast amounts of information on their children. They could choose what information and to whom this information should be shared. Now, they don't even know that it is being shared. How can we possibly say that 'the best interests' of a child are paramount when this information is being proffered without any sort of knowledge of the individual or a motivation to maintain their privacy by those who know and care about them, their parents and their teachers?

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0278
Comment on FR Doc # 2016-22002

Submitter Information

Name: Pamela Sanford

General Comment

I am against mining data of our children. At the very least it must require parental permission.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0279
Comment on FR Doc # 2016-22002

Submitter Information

Name: Laura Carlson

General Comment

I support parent control and parent informing of every data bit gathered by government institutions.

PUBLIC SUBMISSION

As of: August 04, 2017
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Posted: December 14, 2016
Tracking No. 1k0-8tl3-uhug
Comments Due: December 14, 2016
Submission Type: Web

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0280
Comment on FR Doc # 2016-22002

Submitter Information

Name: Ruth Rose

General Comment

I believe in informed consent. I oppose non-consensual data mining of my and other children in schools. Further, the whole of the Federal Department of Education should be dissolved and the money/control returned to the States.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0281
Comment on FR Doc # 2016-22002

Submitter Information

Name: Carolyn McLarty

General Comment

Data collection beyond basic information is not the role of education. The right to privacy is
more important than collecting data
for companies to crunch and manipulate and sell. Collecting data without consent is egregiously taking advantage of a vulnerable population to control them, their future, and use them for commercial and political gain.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0282
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Regarding the data-mining of our children under Common Core...this is why Donald Trump won in a landslide. The frustration with unelected bureaucrats, their Big-Brother mentality and the overall over-reach of government is why the American people are demanding that the Feds get out of education. Hands off our children. Hands off our education in general.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0283
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

NO MORE DATA SHARING! STOP SHARING MY CHILDRENS' DATA! STOP COLLECTING MY CHILDRENS' DATA!

In Article 1 Section 8 of The Constitution of the United States of America, also known as the enumerated powers clause, this sort of power is not granted to the federal government, and thus the exercise of such powers is totally unconstitutional!

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0284
Comment on FR Doc # 2016-22002

Submitter Information

Name: Donna B.

General Comment

Stop the Data Mining without the informed consent of parents or guardians. We are not a communist/socialist country. Thank you.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0285
Comment on FR Doc # 2016-22002

Submitter Information

Name: s s

General Comment

I believe in informed consent. I oppose non-consensual data mining. Stop this madness.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0286
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

My children are not commodities. Stop sharing their information.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0287
Comment on FR Doc # 2016-22002

Submitter Information

Name: R. Crawford

General Comment

"I'm against elected or unelected officials using our children's data. I can't trust elected officials to run their own lives, let a loan their campaign honorably. So how the heck can I trust a unelected officials. It's time we start producing good citizens. Stop testing our children for data. I do not consent to letting my children or grandchildren be used for collecting data.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0288
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

If the Commission is looking for unique and very promising examples of government programs encouraging Evidence-Based Policymaking, it should learn from and highlight Development Innovation Ventures (DIV) at USAID. DIV is very focused on maximizing results while minimizing costs to the taxpayers. It encourages companies, academics, NGOs and others to compete to help people better, faster and cheaper by focusing on solutions that are the most cost-effective, backed by the most evidence, and have the strongest pathways to scale and sustainability. DIV is a program that should be amplified at USAID and a model that should be copied by many other parts of government.

here are some links worth reading:

Lean Startup Goes to Washington: SSIR
https://ssir.org/articles/entry/the_lean_startup_goes_to_washington

OMB Memo M-13-17
https://www.whitehouse.gov/sites/default/files/omb/memoranda/2013/m-13-17.pdf

support from the Coalition For Evidence Based Policy
http://coalition4evidence.org/wp-content/uploads/2013/07/Coalition-Board-of-Advisors-

Update-07-11-13.pdf

Can Silicon Valley Save the World: Foreign Policy
http://foreignpolicy.com/2013/06/24/can-silicon-valley-save-the-world/

and more at:
http://divatusaid.tumblr.com/tagged/What%20others%20are%20saying%20about%20us

and www.usaid.gov/div

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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0289
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

This madness must be stopped. Our Constitution guarantees United States citizens the right to life, liberty, and the pursuit of happiness. This is MY right to my own life and my children's right to their own lives. This does not give the government a right to OUR lives. The data mining of our children in the name of education is a violation of our basic God given rights which are protected by the Constitution.

PUBLIC SUBMISSION

As of: August 04, 2017
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Tracking No. 1k0-8tl4-htbz
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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0290
Comment on FR Doc # 2016-22002

Submitter Information

Name: Marianne Dwyer

General Comment

Our children are not to be used for research and marketing. Stop using our children's information for your gain. Their privacy is too important

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0291
Comment on FR Doc # 2016-22002

Submitter Information

Name: Wendy Ruf

General Comment

I am opposed to allowing greater data access. Children's data needs to be managed by their parents. Allowing greater access
has the potential to pigeon-hole children from an early age and limit their opportunities in the future. People who have never
seen, spoken with, or cared about a particular child, will be able to know every detail about them and make decisions about
them without their parents knowledge or consent. Parents have always been the only source of the of ALL information on
their children. They could choose what information and to whom this information could and should be shared. Now, they don't
even know what information it is being shared. How can we possibly say that 'the best interests' of a child are paramount when
this information is being proffered without the individual, parents or teachers who know and care about them?

PUBLIC SUBMISSION

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Submission Type: Web

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0292
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Stop data mining Americans without their informed consent... INFORMED meaning you inform us what you are gathering, what it will be used for and then you are not allowed to data mine us without our signed consent. Where in the Constitution does it say that the federal government has the right to subject citizens to this?

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0293
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

We must stop the data mining and we must push for restoration of FERPA and COPA laws.There must be INFORMED consent with OPT-INs, not opt-OUTS! No "surveys", either, without opt-ins. FERPA was absolutely GUTTED in 2011 (by regulation) and now anyone claiming to have an "educational interest" has access to our kids' PII. Personally indentifiable information is PRIVATE PROPERTY and this private property is being stolen from our kids & used & abused on a daily basis. Most tragically, it is being used to push the progressive ideology on our kids & to plug them into one of 16 "career clusters" -- as young as 6th grade. This WFD (workforce development) model is supported by Dems and Republicans alike and our kids are being USED by business and publishers and others. This process MIGHT be somewhat acceptable if it was directed by the child and parent, but it is NOT. (And yes, kids can be identified by very few data points, especially kids in small schools). Parents will never quit fighting this data theft and abuse. We will never quit fighting to protect our kids.

PUBLIC SUBMISSION

As of: August 04, 2017
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Tracking No. 1k0-8tl5-oso7
Comments Due: December 14, 2016
Submission Type: Web

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0294
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I believe in informed consent. I oppose non-consensual data mining. Stop this madness.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0295
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I believe in informed consent and oppose non-consensual data mining. Data privacy is at the core of our liberty and for the government to unilaterally use my data without my consent is unconstituional.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0296
Comment on FR Doc # 2016-22002

Submitter Information

Name: Paul Blair

General Comment

The purpose of education is to provide our children a classic liberal arts education. This is a necessity for a free people where the government is accountable to "we the people." There is no need for data mining in a free society. Data mining is only used by those societies that wish to exercise control over the people by the government.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0297
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Although intentions may be good, each step taken in these types of things makes life in general more difficult. These things highly affect "trust". Unfortunately policies lije these create wedges, and do not unite community/parents. Children need to be allowed to be children without being spied on. Parents need to be comfortable in trusting that the true sole purpose of a public education for their children is to educate children. These things have nothing to do with educating children and more to do with turning our schools into scientific testing labs whether for economic science or otherwise.

PUBLIC SUBMISSION

As of: August 04, 2017
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Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0298
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Reed

General Comment

I believe in informed consent. I oppose non-consensual data mining.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0299
Comment on FR Doc # 2016-22002

Submitter Information

Name: Jan Mayfield

General Comment

Stop data mining, need consent

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0300
Comment on FR Doc # 2016-22002

Submitter Information

Name: Kelly Eggertsen
Address:
   Salt Lake City, UT, 84105
Email: KELLYATHOMPSON@MSN.COM

General Comment

Please stop the madness of data mining our students and, especially, doing so without parental consent. Student information should be private and respected. Moreover the companies and corporations that benefit so much from this data-mining should have to ask permission for it, pay the subject for the information and abide by respectable standards of research and development. FERPA needs to be amended to actually do what most parents think that it does. It needs to have muscles amended back into it to protect our students from exploitation. What's going on right now is not right. Please have the courage to shut it down. Also, this is unfair to the taxpayer who fronts this bill while corporations benefit.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0301
Comment on FR Doc # 2016-22002

Submitter Information

Name: Tina Anonymous
Address:
   UT,

General Comment

I am opposed to allowing greater data access. Children's data needs to be properly managed by their parents. In medicine, children's data would only be allowed to be used in research with the informed consent of their parent or guardian. But in education this is lacking. Why would we want it any less invasive? We live in an era where people who have never met my child, will be able to know vast amounts of information about them and make decisions about them without me even being able to say yes or no to the release of their information. In the past, parents were the only source of the information on their children. They could choose what information and to whom this information should be shared with.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0302
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Explicit informed consent of ANY data gleaning of an individual is THEFT of individual intellectual property. Compulsory, mandated, legislated, un-transparent participation in technology environments is THEFT of individual intellectual property and an invasion of privacy and robs the individual of the ability to protect himself.

Those who contrived to construct and force these mandates and systems on the individual through legislative/government and corporate means are cowards and inhumane. They are not for choice. They are not leaders.

They are cowards and weak-minded individuals who are afraid to allow human beings the ability to make their own decisions and compete on the same playing field.

They have to create protectionist environments that allow them to be successful and control others. They are cowards and weak.

Worst of all, those of you supporting and working to data gleaning initiatives are inhumane.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0303
Comment on FR Doc # 2016-22002

Submitter Information

Name: karen price

General Comment

I believe in informed consent.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0304
Comment on FR Doc # 2016-22002

Submitter Information

Name: Charlotte O'Hara

General Comment

Data mining our children is an unconscionable act in and of itself. Then to add insult to injury, allowing data collection on a child without direct parental knowledge and consent is abhorrent to every tenant of a free society. Absolutely no data mining without full disclosure to the parents and consent from the parents.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0305
Comment on FR Doc # 2016-22002

Submitter Information

Name: Ivan Richeson

General Comment

Just more unneeded, unwanted and inappropriate intrusion by the government

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0306
Comment on FR Doc # 2016-22002

Submitter Information

Name: Patty Burke

General Comment

Would any of you like your personal information tracked from birth to death? I think not. It is wrong. We are not a communist country yet. I'll be fighting every day to make sure that we don't become a communist country, including supporting political candidates that uphold the U.S. constitution.

PUBLIC SUBMISSION

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0307
Comment on FR Doc # 2016-22002

Submitter Information

Name: Tina LeBaron

General Comment

Please no. Information should always be private and not shared with anyone.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0308
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

The existing set up of the Federal Statistical Research Data System and existing calls for research from the IRS's SOI program allow for important research which can inform policy. However, the IRS system limits access to a small number of researchers. Better evidence comes when many researchers have access to these type of data. Existing efforts like the QCEW program and synthetic SIPP data allow researchers to use linked administrative data without risking privacy. Other OECD countries have ways of protecting privacy while allowing widespread access to administrative data. We should copy these. It would be good to require that states share data on federally funded programs and link these to federal data maintained by IRS and SSA to get a full picture of program use and income. these data should be made more broadly available to academics at universities and think tanks much as the FSRDC system does. Using these data there requires that individuals promise to never reveal the data.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0309
Comment on FR Doc # 2016-22002

Submitter Information

Name: Gregory Goode

General Comment

Stop...just stop...that means NO! You may not data mine our children....WTH?????

PUBLIC SUBMISSION

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0310
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I am 100% opposed to the government tracking me or my children in any way or form. You have no business collecting this data.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0311
Comment on FR Doc # 2016-22002

Submitter Information

Name: Jenny Baker

General Comment

Personal Identifiable data must not be mined without personal consent.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0312
Comment on FR Doc # 2016-22002

Submitter Information

Name: Sallie Henry

General Comment

I oppose non consensual data mining. It is an infringement on the liberty of the American people.

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0313
Comment on FR Doc # 2016-22002

Submitter Information

Name: Debra Miller

General Comment

I believe in parental rights. I oppose non-consensual and hidden data mining. Stop this madness."

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0314
Comment on FR Doc # 2016-22002

Submitter Information

Name: Irma Holmes

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all public school students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008 the reasons against creating it have only become more persuasive.

In the past few years, data held by federal agencies has been hacked, including the personal information more than 22 million individuals, not only federal employees and contractors but also their families and friends, from the records of the Office of Personnel Management. The US Department of Education has especially weak security standards in its collection and storage of student data, and recently received a grade of "D" for its security protections.

In addition, preK-12 student data currently collected by State Education Departments that would potentially be shared with the federal government include upwards of 700 highly sensitive elements, including students' immigrant status, disabilities, disciplinary records, and homelessness.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from preK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban.

Yours,

Irma Holmes Elk Point, South Dakota

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0315
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I believe in informed consent. I oppose non-consensual data mining. Stop this madness.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0316
Comment on FR Doc # 2016-22002

Submitter Information

Name: Karen Jenkins

General Comment

I believe in informed consent. Stop this madness!

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0317
Comment on FR Doc # 2016-22002

Submitter Information

Name: Shane Trahan
Address:
   Durham, 27709
Email: srt@rti.org

General Comment

On behalf of RTI International thank you for the opportunity to provide comments for the Commission on Evidence-Based Policymaking. We welcome the opportunity to contribute more research and assistance in development of this commissions objectives now and in the future. RTI International was established in 1958 and is one of the nation's largest nonprofit research organizations, employing 4,150 employees who work in several U.S. locations and nearly 85 countries. Contract research is our core business; we provide unparalleled study and analysis in health and pharmaceuticals, education and training, surveys and statistics, advanced technology, international development, economic and social policy, energy and the environment, and laboratory and chemistry services.

Attachments

EvidenceBasedPolicyComments

Request for Comment Evidence Based Policy

Department of Commerce Docket 160907825-6825-01

On behalf of RTI International thank you for the opportunity to provide comments for the Commission on Evidence-Based Policymaking. We welcome the opportunity to contribute more research and assistance in development of this commissions objectives. RTI International was established in 1958 and is one of the nation's largest nonprofit research organizations, employing 4,150 employees who work in several U.S. locations and nearly 85 countries. Contract research is our core business; we provide unparalleled study and analysis in health and pharmaceuticals, education and training, surveys and statistics, advanced technology, international development, economic and social policy, energy and the environment, and laboratory and chemistry services.

Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?

> Ensuring the security of data is critical to instilling trust in any system. To support evidence-based policy, existing data will be combined and linked with other data collected through new programs via survey or other means. To ensure the integrity of the data, we recommend storing information and data within a tiered system based on data characteristics. This type of model can include data that would fit within Federal Information Processing Standards (FIPS) low or moderate computing environments. Each environment is explained below:

> *FIPS Low-* FIPS low is inclusive of publicly available data that has been thoroughly scrubbed, de-identified, or aggregated so that no personally identifiable information can be obtained through analysis. Data consumers can download and analyze FIPS low data through an easy-to-use interface requiring limited authentication. Examples include the American Community Survey (ACS) and Census related data. The target audience for this type of data is broad and far-reaching.

> *FIPS Moderate-* FIPS moderate environments are inclusive of platforms that are highly restrictive. Such platforms should include a rigorous vetting process to allow access to micro-data that may include personally identifiable information, health-related data, tax related data, key industrial performance data, and other types of personal or confidential data. FIPS moderate platforms allow researchers to access data within a secured environment for limited amount of time and under the watchful eye of the data provider. Research derived from such data is reviewed by a sponsor before results are shared, ensuring that data and other elements of the research maintain confidentiality of the information contained within the environment.

> Using this two-tiered approach would allow basic research to be stored and accessed within a FIPS low environment and more targeted research to be performed within the FIPS moderate environment. Currently, several Census Bureau Research Data Centers (RDC's) located around the country employ FIPS moderate environments to allow researchers to access Census microdata for highly computational research. These Research Data Centers are located within regional research centers where highly skilled staff are able to maintain data security while helping researchers access and use the data. Users of the microdata are required to submit abstracts describing the research they are carrying out and indicating how long they require

access to the data. The FIPS moderate environments include software tools such as SAS, SUDAAN, and R statistical packages; database platforms such as Oracle, SQL Server, and MySQL; and common applications such as Microsoft Word and Excel. These tools allow researchers to perform research within the secured environment. To ensure confidentiality, information cannot leave this secured environment until it has been reviewed by Research Data Center staff. Published research resulting from work at these Research Data Centers includes but is not limited to papers for publications or newly created datasets. A similar model is currently being used by the Substance Abuse and Mental Health Services Administrations (SAMHSA) Substance Abuse and Mental Health Data Archive (SAMHDA). Analysis on public data is done through a highly interactive web-based platform. Researchers can apply for virtual access to more detailed micro data collected through other surveys, including the National Survey of Drug Use and Health.

How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions?"

"Qualified researchers and institutions" should include highly skilled statisticians and relevant subject matter experts in appropriate fields and organizations that understand the importance of data security first and foremost and have demonstrated an ability to provide the necessary skillsets to fully understand and utilize data analysis. The goal should not be to limit the use of the data but should be just the opposite: it should be the desire of the Commission and others within the government to make this data available for evidence-based policy research by policy makers, educational institutions, foundations, and commercial interests as well. The Commission should encourage partnerships among all facets of government, academia, and industry that have a vested interest in successfully implementing policies that benefit US interests across the nation and around the world. Data that includes but is not limited to personally identifiable information, health-related data, tax-related data, and key industrial performance data should be kept in a highly secure computing environment that is available to qualified researchers and institutions provided they agree to data confidentiality restrictions. To foster openness and basic research, data that has been scrubbed should be made widely available and easy to access.

What technological solutions from government or the private sector are relevant for facilitating data sharing and management?

Rather than dictating relevant solutions, the Commission should focus on building a framework for data sharing and management based on defined standards of data sharing. These standards could include agreed-upon data formats and standards established by working groups comprised of academics and other subject matter experts. Because technology changes rapidly, to focus on technology itself could stifle innovation and create silos of data trapped within outdated solutions. The working groups would be able to promote data access and standardization of data and facilitate the analysis of existing data and the collection of new data

through surveys and other means, depending on the population being studied. A robust framework will support data management technology as it evolves, and it will meet the needs of the community over time including innovative ways that facilitates access, analysis, and sharing across various constituencies.

What barriers currently exist for using survey and administrative data to support program management and/or evaluation activities?

The current data collected by many programs and surveys is highly valuable. However, while any given data collection effort serves a specific purpose, a lack of standard definitions makes it difficult to integrate this data across domains. Data reuse is increasingly recognized as a critical contributor to research, because the collection of data can be costly and time consuming. Data should be thought of as a crucial resource that has value and, if combined with other data, can potentially increase in value as more information is gleaned from analysis. If the Commission can establish and foster frameworks that strive to develop data standards and work with key data and information stakeholders, these standards will promote reuse and increase the accessibility of data to researchers. Developing data standards is by no means a small task, but it is critical to make possible easy access, dissemination, and analysis across domains.

How can data, statistics, results of research and findings from evaluation, be best used to improve policies and programs?

Taking into account limited resources, we must look at ways to maximize return on investment. Whether the resource be time, labor, or money, policies and programs should be focused on returning value to constituents and improving the lives of the American people. To facilitate best practices and improved outcomes, data can be collected and analyzed, and models can be developed to provide probabilistic outcomes for given policy/program implementations. These models can act as a guide and can facilitate discussion toward solutions. While these models have limitations, including unknown variables and other externalities, they can offer researchers useful starting points to drive their analysis and research. Models are also subject to confirmation bias, which is the tendency to interpret research in a way that conforms to one's preexisting beliefs or hypotheses. The Commission must acknowledge this bias and introduce frameworks to manage it appropriately. Working through academic channels as well as involving stakeholders on many sides of a particular issue, the Commission should work toward standardizing data and unbiased model development. Over time, with suitable frameworks in place, data will become better, models will adapt to changing norms, and new metrics will be established in specific areas that will further improve outcomes and model accuracy.

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0318
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I OPPOSE SB2098. There should not be any additional data tracking of our children. No. No. No.

Mom of 3 in central Arkansas.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0319
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

The Federal Government has no need and no authority to obtain information on my children's education for any reason. Nor do they have any reason or any authority to collect sensitive psychological/social-emotional information. You cannot keep it safe and you have no right to it.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0320
Comment on FR Doc # 2016-22002

Submitter Information

Name: Tom Thelen

General Comment

I oppose data mining my personal information. You should have consent first.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0321
Comment on FR Doc # 2016-22002

Submitter Information

Name: Kim Dancy
Address:
   Washington, DC, 20001
Email: dancy@newamerica.org

General Comment

See attached file(s).

Attachments

New America CEP Comments

December 14, 2016

Chairperson Katharine Abraham, University of Maryland
Co-Chair Ron Haskins, Brookings Institution
Commission on Evidence-Based Policymaking
Docket ID USBC-2016-0003

Dear Dr. Abraham and Dr. Haskins,

Thank you for the opportunity to comment on the Commission on Evidence-based Policymaking efforts to improve data availability and infrastructure in order to answer critical policy questions. As experts in federal postsecondary policy, New America's Education Policy Program is committed to using data and evidence to drive our policy recommendations whenever possible, while ensuring student privacy and data security remain firmly in place. In our work, we have encountered many data limitations, many of which are driven by a 2008 ban on combining federally held administrative data on students and their outcomes for policy evaluation and research purposes.

Q3. Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?

In the years since a federal student unit-record system was first proposed by the Bush administration in 2005, and banned by the Higher Education Act in 2008, the need to use data to drive postsecondary education forward has only become more critical. Since then, college has become increasingly more expensive,[1] and colleges now serve a larger and more diverse student body than ever before, requiring schools to accommodate students with a much wider array of abilities, experiences, and needs.[2] In this environment, better information could help institutions better serve their own students, help policymakers support institutions and students alike, and allow students to easily identify the programs and schools that offer them the best chance of success.[3]

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[1]"Average Net Price over Time for Full-Time Students, by Sector," College Board Trends in Higher Education:

[2] Rachel Fishman and Kim Dancy, "More Than Tuition: Today's Students and Institutional Incentives for Setting Yearly Budgets," *EdCentral*, May 5, 2016: https://www.newamerica.org/education-policy/edcentral/more-than-tuition-3/

[3] Kim Dancy, "Transparency, Accountability, and Trump: Gainful Employment Data are Worth Keeping Around," *EdCentral*, November 18, 2016: https://www.newamerica.org/education-policy/edcentral/transparency-accountability-and-trump/

2

Even in light of soaring costs, better-than-ever labor market returns to a college degree[4] have driven expansion in postsecondary enrollment. The answer to the question "Is College worth it?" is an unequivocal "yes" - on average. But the real question is: in which programs, at which colleges, at which price, and for which students is it worth it? Students, families, and taxpayers are spending unprecedented amounts on higher education, but remain largely in the dark about *how* to spend these precious dollars. Students and families may know a lot about an institution's campus culture or online flexibility, but they know little about whether students from particular institutions graduate and get good jobs that allow them to pay down their debts.

Why can't we answer these questions? The federal government either doesn't have—or can't use—the right data. That's true, not because it is technically impossible, but because it is illegal. In 2008, Congress passed a law that banned the creation of a federal student unit record system to enable *existing* data systems to speak with one another and answer critical questions. Much of the data needed to answer key questions are already collected, but can't legally be connected. Without the ban, the Department of Education could gather student-level data already collected and stored by schools, states, and the federal government, safeguard it, and link it across schools and to other data sources. The data points of such a structure, called a student unit record system, could be a powerful tool to better understand the trajectories, struggles, and successes of an increasingly diverse student body. If only they were connected.

There are a number of state and federal datasets that can and should be leveraged, but which cannot currently be linked. These include: (1) the Department of Health and Human Services National Directory of New Hires (NDNH) and the U.S. Census Bureau's Longitudinal Employer Household Dynamics (LEHD) program, which both include Unemployment Insurance (UI) wage records submitted by states to answer workforce and outcomes related questions; (2) SSA and the Internal Revenue Service (IRS), which have individual tax records that, in a handful of instances, agencies have found ways to use to report employment and earnings outcomes at the program level to better understand student outcomes in the workforce; (3) ED, which houses the National Student Loan Data System (NSLDS) and Integrated Postsecondary Education Data System (IPEDS), two databases whose information on financial aid and student access and success can be disaggregated to see progress for student subpopulations; and (4) the DoD and VA, which house data on students using any iteration of the G.I. Bill to fund their education. Linking these data sets requires overturning the existing ban on a student-unit record system.

Q2. *Based on identified best practices and existing examples, what factors should be considered in reasonable ensuring the security and privacy of administrative and survey data?*

Privacy understandably tops many Americans' lists of concerns about a student unit record system. Recent revelations about widespread surveillance by the National Security Agency and massive data breaches at private retailers like Target have brought privacy and data security issues to the forefront of public conversations—as well they should. Rapid advances in technology provide tremendous opportunities to collect and utilize data for the public good, but have also brought about the potential to do

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[4] Anthony P. Carnevale, Stephen J. Rose, and Ban Cheah, *The College Payoff: Education, Occupations, Lifetime Earnings*, (Washington, DC: Georgetown University Center on Education and the Workforce: 2011), https://www2.ed.gov/policy/highered/reg/hearulemaking/2011/collegepayoff.pdf .

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tremendous harm. Any conversation about a federal student unit record system must engage intentionally, honestly, and carefully with issues of security and privacy.

Since the federal government spends hundreds of billions of taxpayer dollars annually to help students go to college, it already collects and is responsible for protecting significant amounts of student data across various agencies. No matter what protections are put in place, the fact is that any data collection—including what is *already done* by colleges and universities for admissions and by the Department for administrative purposes such as disbursing and collecting federal student loans— reduces privacy to some extent. The overarching question then becomes whether a reduction in privacy is worth the broader individual and societal rewards, and how to minimize those risks where they do occur. Students already exchange some anonymity for valuable services or information. Every year, millions of students submit highly personal information, including their families' income information, through the Free Application for Federal Student Aid (FAFSA). Additional value could be derived if these existing data sources were connected to enable policymakers, taxpayers, institutions and students to better assess questions like:

- How many low-income, Pell Grant recipient, first-generation, veteran, adult, transfer, and part-time students, attend each college? At which schools do these students have the best odds of making it to graduation?
- How long does it take students, particularly students who enter with less academic preparation or fewer financial resources, to complete college?
- Do the students who don't graduate transfer, or do they drop out?
- How much and how often do students borrow, and how long does it take the typical graduate to repay these loans?

While there may be compelling reasons to accept some of the trade-offs that come with a federal student unit record system—not least the hundreds of billions of dollars students and taxpayers spend each year on higher education—thoughtful and strong privacy and security policies must be put in place. Student privacy can be addressed using a risk-based framework, where the risks of disclosures or violations are evaluated and weighed against the benefits of using data to address key policy questions. Every attempt to mitigate potential risk must be taken, and individuals are held accountable for any violations that occur.

Unfortunately, *student* privacy has often been used as a cover for *institutional* privacy, with higher education institutions blocking data collection and connection to prevent closer scrutiny of their programs and student outcomes--to the detriment of students themselves.[5] Indeed, in the higher education sphere, privacy interests have frequently been leveraged to block data collection and shield universities from efforts at transparency. Moving forward, we must absolutely address student privacy concerns, but should not allow institutional privacy to get in the way of transparency and accountability.

As it stands, institutions hold extensive student-level records. But even in the states and schools most committed to transparency, they are still forced to work with imperfect fixes that could be easily addressed at the federal level. For example, the University of Texas system has spent years working to connect institutionally held data on student enrollment and persistence with earnings data held by federal

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[5] Amy Laitinen and Clare McCann, *The College Blackout* (Washington, DC: New America, March, 2014), http://www.collegeblackout.org/

agencies. This year, they succeeded in working out a contract with the U.S. Census Bureau enabling these data connections.[6] This makes the UT system one of the only schools in the country that will be able to understand earnings data at the program level for all of its students at all of its campuses, in addition to identifying migration patterns, industries of employment, and more. But the UT schools won't be able to compare themselves to others: Just down the road, at Baylor University in Waco, Texas, a private university, student earnings data will remain unavailable or incomplete. This limits both UT's ability to benchmark itself against its peer institutions and a student's confidence in deciding whether and where to enroll. In other states, the problems are far more severe: schools may be able to connect to earnings and employment data for students who remain in-state, but the data trail ends if those former students work or reside across state lines.[7]

Lessons Learned from State Longitudinal Data Systems

While the federal government is prohibited from linking or sharing any of its student data, the absence of a federal student unit record system of the type described here does not mean that student records are not currently collected or shared outside of individual colleges and universities. For one thing, in response to the 2008 ban on the creation of a federal student unit record system, the Department created a competitive grant program to assist states in setting up and administering their own student record systems, known as State Longitudinal Data System (SLDS).[8] As a result, today nearly every state has such a system, and these systems vary widely with respect to which data are collected and how they are stored, data governance structures, and privacy and security regulations and protocols. This variation in privacy structures lends itself to an exploration of best practices, and also illustrates lessons to be learned for the use of data held at the federal level.

ED's Office of the Inspector General (OIG) has conducted audits of two State Longitudinal Data Systems (Oregon's[9] and Virginia's[10]) - a third, Indiana's, is still in-progress. The states were "judgmentally selected" on the basis of their SLDS grant funding, the status of their funded projects, and the number of reported data system breaches.[11] Oregon did not consider its own system to constitute an SLDS, but OIG disagreed and concluded that the state's K-12 database did constitute an SLDS. Two Virginia systems were audited: a statewide data query interface which administrators use to search for data, and the K-12 exposure database from which data is retrieved. Neither state's audited system has had any documented breaches.

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[6]"UT System partners with U.S. Census Bureau to provide salary and jobs data of UT graduates across the nation," University of Texas System, September 22, 2016: https://www.utsystem.edu/news/2016/09/22/ut-system-partners-us-census-bureau-provide-salary-and-jobs-data-ut-graduates-across

[7] For example, the Western Interstate Commission for Higher Education's "Multistate Longitudinal Data Exchange": http://www.wiche.edu/longitudinaldataexchange

[8] See http://nces.ed.gov/programs/slds/

[9] United States Department of Education Office of Inspector General, "Protection of Personally Identifiable Information in Oregon's Statewide Longitudinal Data System," September 27, 2016: http://www2.ed.gov/about/offices/list/oig/auditreports/fy2016/a02p0007.pdf

[10] United States Department of Education Office of Inspector General, "Protection of Personally Identifiable Information in the Commonwealth of Virginia's Longitudinal Data System," July 12, 2016: "http://www2.ed.gov/about/offices/list/oig/auditreports/fy2016/a02p0006.pdf

[11] From 2007 to present, Oregon received about $19 mil in three packages of IES funding for their SLDS; Virginia received about $24 mil in two packages.

Oregon started developing their Consolidated Collection System (CCS) in 2003-4, and today it is comprised of 81 data stores that incorporate student academic performance, graduation rates, and discipline incidents. The database is accessed from central login according to a "need-to-know" hierarchy of differentiated access--that is, a school administrator can view their own district's data, but not that of other districts. External research requests are processed individually and the requested data is collected by the Oregon Department of Education (ODE) then transmitted to the requester in anonymized form.

The Virginia Longitudinal Data System (VLDS), deployed in 2013, queries five state agencies - including the Virginia Department of Education's Single Sign-on Web System (SSWS), the state's K-12 exposure database, which was audited along with VLDS. VLDS reads hashed data from the queried database, which it hashes again (assigning a new identifier) before returning the request. VLDS does not store data, but processes individual requests as needed, completely anonymizing any output produced. Research queries are submitted through VLDS, and VDOE returns the requested data from SSWS. These results remain available for 10 days and are then deleted. Again, permissions are assigned according to a system of differentiated access.

In both cases, the OIG found the SLDS operations did not conform to the state's own data security policies. Lacking documentation of security plans or of security operations such as maintenance or breach reports was cited as a failing of both systems. The audit found that ODE failed to implement a security plan, conduct annual risk assessments, and classify their database's contents according to state standards. OIG also noted that administrators in Virginia's SSWS did not update its risk assessment, did not remedy vulnerabilities detected by an internal scan, and did not conform to the state's password policies. However, the report also noted that the VLDS system, which combines data held by different state agencies in Virginia, but does not store or hold any such data, presented no increase in risk of disclosure or inappropriate use. Thus, *while data security protocols for existing federal data should be rigorous and thorough, there are models available for combining these data sources in ways that help address critical policy questions without increasing the risk to student privacy.*

The reports also noted several areas of best practice that should be adopted and implemented for any federally held student data, including:
- Having a security plan that includes:
    - Risk assessments/identification,
    - Detection protocols,
    - Monitoring and testing protocols (including automated vulnerability scans every 90 days), and
    - Data security classifications and training protocols
- Ensuring sufficient staffing to carry out the above tasks
- Storing readable data in encrypted format
- Reducing linkages to minimum necessary to reduce transmission vulnerabilities
- Requiring new passwords after determined length of time or number of data generations (e.g., 20 data pulls), and disabling inactive accounts.

Protecting Privacy at the Federal Level Remains Critical

Many of these policies are already enacted in the work of the Department of Education's National Center for Education Statistics (NCES), classified as a statistical agency and therefore subject to stringent requirements under the Privacy Act of 1974, the Education Sciences Reform Act of 2002 (ESRA), and the E-Government Act of 2002. Under the ESRA, for example, an individual who discloses personally identifiable information is subject to a fine of up to $250,000, five years in prison, or both—a harsh consequence that ensures data security is not taken lightly.[12] In fact, the Department has withheld confidential information from its student-level cross-sectional and longitudinal surveys, while still making this information available to qualified researchers for policy analysis and research. At the SSA, whose data would be used to match education and earnings records, employees face similar punishments for violations of privacy law.

Moreover, both the Department of Education and the Social Security Administration are experienced in data matching and de-identification practices. The Department of Education's Disclosure Review Board reviews data releases and restricts those that could contain re-identifiable student information. The Department of Education's National Forum on Education Statistics has also published recommended best practices for distributing data to external researchers, which ensure that taxpayers and the public benefit from federal data collections without violating the privacy of the students in question. SSA employees are also very experienced in the data practices in question, and currently conduct data-matching projects with the National Technical Institute for the Deaf and for gainful employment regulations, among others.[13]

Other agencies, such as the Census Bureau, securely maintain extremely personal and sensitive information on a large scale. The Department of Education should work with the Census Bureau to establish procedures that would limit the potential for hacking, theft, or inadvertent release of private data, including limiting data access to only a few people in a few locations, building up information technology infrastructure to ensure that the agency is better equipped to detect and deter hackers, and conducting regular audits and updates of security standards and practices.

In developing a student unit record system, privacy advocates and experts should sit together with consumer information and student advocates, legal experts, data analysts, and higher education policy researchers to create security and privacy protocols and protections for such a system. A good place to begin could be with an existing federal model for privacy and security, which lists its key elements as: transparency; avenues for individuals to correct their data; a specific and narrow purpose of the data; data collection and retention that does not exceed the scope of the purpose; use of the data that is strictly limited to the program's purpose; "accurate, relevant, timely, and complete" data; data security; and accountability and regular auditing of the program.[14]

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[12] US Social Security Administration, Program Operations Manual System, GN 03301.045, "Penalties for Violation of the Information Laws." TN 3 (11-98) (19 July 2012): https://secure.ssa.gov/poms.nsf/lnx/0203301045 .

[13] Laitinen, Amy and Clare McCann, *The College Blackout* (Washington, DC: New America, March, 2014), http://www.collegeblackout.org/

[14] "Federal Enterprise Architecture," White House Office of Management and Budget, May 2, 2012: http://www.whitehouse.gov/omb/e-gov/fea ; and "Best Practices: Elements of a Federal Privacy Program: Version 1.0," Federal CIO Council Privacy Committee, June 2010:

To improve postsecondary education for students and their families, help policymakers make informed decisions about where to invest resources, and allow institutions to understand their strengths and weaknesses relative to peer institutions, better use of existing data at the federal level is necessary. We recommend that the Commission on Evidence Based Policymaking encourage Congress to overturn this ban, so that data can be used to deliver better education outcomes to students, more efficiently and effectively. Doing so allows policymakers to explore the most appropriate and secure ways in which to combine data, either on a case-by-case basis using a federated model, such as that used by Virginia and other states, or through the development of a stand alone student-unit-record system. This allows for the evaluation of the privacy considerations particular to the proposed system, which will matter tremendously for its impacts on students, and enables the utilization of lessons learned from other statistical agencies, state education data systems, and more.

Sincerely,

Amy Laitinen,
Director, Higher Education Initiative, Education Policy Program

Kim Dancy,
Policy Analyst, Higher Education Initiative, Education Policy Program

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http://energy.gov/sites/prod/files/Elements%20of%20a%20Federal%20Privacy%20Program%20v1.0_June2010%20Final.pdf

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0322
Comment on FR Doc # 2016-22002

Submitter Information

Name: Kim Barden

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.

In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors but also their families and friends.

The US Department of Education has been found to have especially weak security

standards in its collection and storage of student data, and received a grade of D for its security protections.

In addition, preK-12 student data currently collected by state departments of education that would potentially be shared with the federal government include upwards of 700 highly sensitive personal data elements, including students' immigrant status, disabilities, disciplinary records, and homelessness data.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from PreK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

Thank you,
Kim Barden
Pennsylvania

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0323
Comment on FR Doc # 2016-22002

Submitter Information

Name: Christine B

General Comment

I am opposed to data mining without consent of the subjects. I believe in informed consent.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0324
Comment on FR Doc # 2016-22002

Submitter Information

Name: Paul Decker
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   Washington, DC, 20002
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General Comment

See attached file(s)

Attachments

Mathematica Letter to EBPM Commission 12-13-2016

MATHEMATICA
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December 14, 2016

Dear Members of the Commission on Evidence-Based Policymaking:

Thank you for giving the research community an opportunity to contribute to the important work of the Commission. For nearly 50 years, Mathematica has been dedicated to delivering evidence-based research, data, and objective analysis of the highest quality. We believe that data used for evidence-based policymaking should be viewed as a treasured resource, one that must be carefully safeguarded. It is clear that the Commission takes safeguarding this resource very seriously, as we do at Mathematica. However, good stewardship of any national treasure must include employing it for the benefit of the nation. We fall woefully short of meeting our stewardship obligations for these data when we fail to realize that the difficulties in accessing them or the restrictions on their use keep much of their value locked away. At Mathematica, we are honored to support the Commission in addressing this difficult challenge.

In response to question numbers 1, 6, 9, 10, 16, 17, 18, and 19 listed on the "Commission on Evidence-Based Policymaking Comments," docket number: USBC-2016-0003, I—along with my colleagues Tamara Barnes, Peter Schochet, Irma Perez-Johnson, and Alexandra Resch—have drafted the following comments. We expect these insights will help inform the work of the Commission and potentially provide discussion topics for future Commission meetings.

Mathematica Response to the Commission's Request for Comments

Question # 1. Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

Researcher-practitioner partnerships have shown promise as a framework that facilitates continuous program improvement and evidence-building at all levels of government. Numerous partnerships focused on using behavioral insights to improve programs have developed in recent years. The White House Social and Behavioral Sciences Team partnered with several federal agencies to improve programs by simplifying communication to program participants and employing behavioral nudges. Mathematica is working with three agencies in the U. S. Department of Labor (DOL) on Behavioral Interventions for Labor-Related Programs, a project in which we apply behavioral insights to DOL programs. In these three examples, program changes were evaluated rigorously, often using randomized controlled trials (RCTs). We provide examples of similar partnerships with state and local Temporary Assistance for Needy Families (TANF) agencies in our response to question #16.

These partnership approaches combine evaluation and evidence building with a cycle of activities to support better programs and policies that are based on evidence. Activities are adapted for each specific program. Most effective partnerships recognize that different policy questions require different levels of

evidence and can support different levels of program evaluation, allowing us to right-size the evidence-building to the problem at hand.

To achieve an ideal framework:
1. It is important to begin with a clear and well-articulated definition of the problem.
2. Next, efforts to improve policies and programs should be grounded in the available knowledge base about why the problem exists, including what has been done to address it and in what contexts. If available, this knowledge base provides solid grounding and context for further innovation and experimentation.
3. Then we identify untested, promising strategies and decide which to pursue or test given operational, contextual, or other constraints.
4. Once promising strategies are selected, we can move into prototyping, refining the selected strategies with input from relevant users or other stakeholders. We attempt to pilot-test on a large enough scale to assess feasibility and uncover important implementation challenges. Then we continue refining additional iterations until we achieve a practical model.
5. We develop a proof of concept test to yield evidence on whether the promising strategy leads to result(s). If yes, we may refine further based on implementation experiences or move on to more rigorous tests. If not, we may go back to Step 3 to explore other promising approaches.
6. Once we have a promising idea on a pilot scale, we can shift to testing, using the most rigorous method(s) possible.
7. If the program or policy concept is proven at scale, we can move to broader adoption or adaptation in other contexts while maintaining effectiveness.

Evidence-building and testing activities permeate each step and must be right-sized to fit our goals and answer the appropriate questions at each stage of the process. This is the framework that underlies our evidence-based technical assistance (EBTA) and other support activities. We find that when program administrators participate in these activities and the evaluation efforts are focused on program needs, program administrators quickly see the value of evaluation and evidence and are enthusiastic about participating in further evidence-building.

Currently, this approach is rarely implemented sequentially or fully in the way we have described. Rather, evidence-building activities happen at any point in the sequence, with or without the benefit of the evidence from the preceding steps. The end result is a spotty mix of evidence on the wide range of government programs and policies in existence, with evidence for some stages of continuous program improvement, but not all. However, there are promising signs (including the work of this Commission) of a growing interest in and recognition of the value of an evidence-based approach to policy and program development and ongoing improvement.

Question #6: Should a single or multiple clearinghouse(s) for administrative and survey data be established to improve evidence-based policymaking? What benefits or limitations are likely to be encountered in either approach?

The idea of establishing a single clearinghouse for administrative and survey data is very attractive, but is likely to take a long time to achieve, and during the wait for that goal to be achieved, its worth may not be evident to all. An alternative framework that may be more easily implemented would require each agency that houses administrative and/or survey data to establish its own data clearinghouse center that

would coordinate with a centralized body acting as a "virtual" data clearinghouse. This virtual data clearinghouse would be the body through which applications for access to data would be submitted and approved, and would serve as the coordinator between each agency's data clearinghouse center, facilitating access to and linking of data across agencies.

Question #9: What specific administrative or legal barriers exist for accessing survey and administrative data?

In its white papers provided to the Commission, entitled *Using Administrative and Survey Data for Evidence-Building* and *Barriers to Using Administrative Data for Evidence-Building*, the Office of Management and Budget did an exemplary job of laying out virtually all of the administrative and legal barriers that we face daily at Mathematica in our work with administrative and survey data.

What is required above all else is fostering a mindset that administrative and survey data are among our national treasures and should be put to their best and highest use. At Mathematica, we have observed that some federal agencies are slowly shifting their mindset in this direction. Federal legislation that embodies this principle and mandates updating laws and agency regulations in light of this principle would be invaluable in achieving this goal more broadly among all stakeholders, including federal agencies, state and local governments, and federal program grantees.

Gaining access to the administrative data of state and local governments can be particularly challenging, and this is an area where Mathematica confronts the reality of federalism and our republican form of government almost daily. In laying a foundation for cooperation in this area, it would be beneficial to establish a model state act that incorporates the principle of stewardship of administrative and survey data as a state treasure. This model state act could, for example, establish a mandate and processes for providing access to administrative data for purposes that benefit both the state and the nation when appropriate. Such a model state act would be similar in nature to other model state acts, like the model administrative procedures act or model public health act.

With respect to federal program grantees, particularly those that are not state or local government entities, a condition of the grant should be the provision of administrative or survey data by the grantee. Standardized language to include in all grant agreements could be developed as a model for sponsoring agencies. In cases where individual consent is required for the provision of such data, the sponsoring agencies can and should plan to provide standardized consent forms and other tools to help ease the burden of obtaining individual consents.

Finally, with agencies holding the attitude that administrative and survey data are a national treasure, one action that can be initiated right away is the use of System of Record Notices (SORNs), which are mandated by the Privacy Act. SORNs are the instruments agencies use to inform the public of what the agency's permitted uses and disclosure standards are for data under their control. A properly drafted SORN would be particularly helpful with respect to survey data that were collected with individual consent. A properly drafted SORN coupled with an individual consent form that properly references the sponsoring agency's SORN, or any amendments to the SORN, would govern the future use, protection, and disclosure of the collected survey data.

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FROM: Mathematica Policy Research
DATE: December 14, 2016
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Question #10: How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions?"

We understand this definition is the basis on which decisions will be made as to who can gain access to administrative and survey data in the data clearinghouse(s). Defining who is "in" and who is "out" is always an important task. Mathematica urges the Commission to view this task as possessing the inherent possibility of shaping the future of evidence-based research by defining who can and cannot conduct such activities with data from the clearinghouse(s). We do not have a crystal ball in which to see the innovations or changes in industry and occupations that will produce "qualified researchers and institutions" decades from now. What we can see is that if you limit this definition to classifications of individuals or institutions as they exist today you may, ab initio, limit the future of the development of public policy research, and we believe such a limit to be a bad thing. We strongly recommend that the Commission use objective standards that are not based on the classification of individuals or entities. Some such objective standards could be, for example, that the proposed use of the data is permitted by law, that relevant ethical and conflict of interest disclosure standards are met, and that the individual or entity can meet data confidentiality and security standards.

Question #16: How can data, stats, results of research, and evaluation findings best be used to improve programs and policies?

Research can be translated into actionable policy changes and program improvements at all levels of government. The examples below highlight just a few of the ways that Mathematica's research results and evaluation findings are being used to improve programs and policies at the federal and state level.

- Our evaluation of Adolescent Pregnancy Prevention Approaches (PPA) is a major federal effort to expand available evidence on effective ways to prevent pregnancy and reduce related sexual risk behaviors among teens in the United States. The eight-year (2008–2016) evaluation documented and tested new and innovative approaches to teen pregnancy prevention in seven sites across the United States. Six of the seven sites received federal funding from the Office of Adolescent Health or Administration on Children, Youth and Families in the U.S. Department of Health and Human Services as part of the federal government's broader effort to invest in evidence-based approaches to teen pregnancy prevention.

- For DOL, the Behavioral Interventions for Labor-Related Programs project involves working with three DOL agencies to examine how behavioral science principles can improve the performance and outcomes of selected programs. For example, Mathematica worked with the Occupational Safety and Health Administration (OSHA) to test whether changes to its citation process could increase employer responsiveness and reduce referrals to the OSHA National Office. Behavioral solutions were found to improve program outcomes and performance, and they can inform the broad adoption of such principles within DOL and many other related programs nationwide. Insights gleaned from this work are contributing to the growing body of evidence on the effectiveness of behavioral strategies.

- In work for the Millennium Challenge Corporation, Mathematica's evaluation of "girl-friendly" schools helped identify program changes that could positively impact girls' education in Niger. Valuable data from Niger provided compelling evidence for governments and donors in thinking about how to develop effective programs to provide access to quality education for children across the developing world, especially girls. Mathematica researchers conducted the evaluation in 178 villages across Niger. They assessed efforts to improve educational outcomes for children in targeted communities and took a concerted look at environmental factors related to increasing girls' access to schooling.

- As part of an "employment-focused programming" initiative, sponsored by the Colorado Department of Human Services (CDHS), in 2015–2016, Mathematica worked intensively with three local welfare agencies to assess their readiness to implement employment-focused programming and identify opportunities for innovation and improvement. We identified one of these sites, Larimer County, as the top candidate and formalized a researcher/practitioner partnership with its TANF program administrators. Over the past two years, we have designed and tested changes to communications and other nudges to help TANF recipients better understand program rules, complete required activities, avoid sanctions, and achieve self-sufficiency. As a result of this partnership, Larimer County staff have learned that evaluation can be timely and can directly inform day-to-day policy decisions.

- Another researcher-practitioner partnership with Ramsey County, Minnesota's TANF agency, identified a new service delivery approach—the Lifelong Learning Initiative (LLI). In 2015, Mathematica was contracted to perform three years of technical assistance on the design, refining, and ultimately the full-scale implementation of this concept. During Phase 1 of the project, we facilitated a collaborative learning and design process in which staff at all levels of the organization (administrators, supervisors, frontline staff, and even clients) contributed to an in-depth program assessment and provided input on the intervention's early design. In Phase 2, we created intervention materials based on Phase 1 recommendations and launched three six-week learning cycles in which intervention training was provided to a cohort of staff. After the three learning cycles, we revamped and polished all of the intervention materials and delivered training for all agency staff in August 2016. Now our focus is on enhancing and strengthening the LLI intervention by incorporating rapid cycle testing and other formative evaluation techniques into implementation.

Question #17: To what extent can and should program and policy evaluation be addressed in program designs?

The continuous program improvement framework presented in response to question #1 indicates that evidence can and should be integrated into every stage of program and policy design and development. Research and evaluation activities should be aligned with the goals at any given stage and can be right-sized to meet important constraints or other considerations. Our experience working with local and state agencies suggests that many agencies do not understand their role in program evaluation. In fact, many see research as something that is done to them and often does not closely relate to their day-to-day program concerns. Agencies developing or implementing new programs are eager to learn whether they are effective, but they struggle to find the resources, including staff time and expertise, to conduct evaluations themselves.

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FROM: Mathematica Policy Research
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To support this work, it would be ideal to set aside a fraction of program funding to support a full range of evidence-based, continuous quality improvement and evaluation, not just one-time program evaluations. Agencies beginning this work also benefit from technical assistance that helps them use evidence and evaluation to answer their own day-to-day policy questions, demonstrates that evaluation can be useful and timely, and develops their capacity to interpret and generate evidence.

Question #18: How can or should program evaluation be incorporated into program designs? What specific examples demonstrate where evaluation has been successfully incorporated in program designs?

It is important that policymakers use evidence-based research to improve their interventions, programs, and policies. Evidence-based research must be rigorous, with proper research questions and study designs to answer the questions a study was meant to answer. Too often, policy is made using subjective judgement or poorly designed research.

To make research most effective, it is critical for it to be ongoing and allow continuous program improvement, instead of being conducted at interim points only. This means that staff at government agencies must be included in the scientific process so they are invested in the research from the start. It is also critical to recognize that research that will be useful to program managers will include a wide range of research methods, not only RCTs. Program managers seeking to refine a current program may use descriptive or non-experimental analyses that help generate hypotheses about what is working and what is not. They may also use machine-learning methods and big data to predict which services might be most effective for each program participant based on his or her characteristics and needs. These managers could then propose changes to their program and evaluate these changes using an RCT or a quasi-experimental design (QED) before deciding to roll out the change widely.

For this to be successful, the nation needs to expand the research community beyond the relatively small number of academics and research organizations that are currently conducting social policy research to investigate the effectiveness of policies and programs. Government agency staff are natural participants to include in research efforts, because (1) they are best informed about the proper interventions to test and how they should be implemented, (2) they can build "rapid-cycle" evaluations into their daily service activities to test incremental changes in their programs, and (3) they may have access to administrative data that can provide outcomes for the evaluations. Perhaps most important, these staff could weigh in from the start about how the evaluation results can be used in practice and be involved in plans for improving the tested interventions.

The examples of researcher-practitioner collaborations provided in response to question #16 demonstrate that agency staff can participate in this work and develop internal capacity for further evaluation and evidence-building. Additional support to agency staff comes in the form of evaluation technical assistance and toolkits to support evaluation. Mathematica has supported these efforts through several contracts, including one with the Administration for Children and Families in the U.S. Department of Health and Human Services and another with the U.S. Department of Education (ED). Through these contracts we provide technical assistance to grantees and local areas conducting impact evaluations, and we produce user-friendly materials (such as how-to briefs, software, and webinars) to support their evaluations. Our recent experience developing an online toolkit for rapid cycle evaluations of educational

technologies for the Office of Educational Technologies at ED suggests that there is high demand for these products. The beta version of our toolkit was released in late October, and we have received inquiries from over 70 school districts that are interested in using the tools and receiving technical assistance. These efforts should be expanded.

The development of evidence at the local level may complement large federal evaluations, but the evaluation of federal initiatives requires evaluations with a broader focus. However, to be most useful to program administrators, large federal evaluations should include careful evaluation of specific program components and variation in program effects. Much federal research has been designed to answer "big" questions such as "What are the average effects of a federal grant program on participants' outcomes?" Although a rigorous RCT for such an evaluation can help us assess whether individuals receiving grant services have better outcomes, on average, than a control group does, it is not always clear how such results can foster continuous program improvement. This is because a complex grant program can have multiple program components and mediating pathways associated with the overall program impacts, and a typical "thumbs-up/thumbs-down" evaluation of a grant program examines the effects of each mediating factor in isolation using non-experimental methods that are prone to sample selection biases. Thus, it may be useful for those who develop research agendas to consider smaller research questions about specific mediators that are varied as part of the research design (for example, different dosages of case management services).

These types of results may be more useful to program managers, but would require a research agenda that could build over time to help us understand which interventions are most effective and for whom, and whether they can be replicated in different settings.

Question #19: To what extent should evaluations specifically with either experimental (sometimes referred to as "randomized control trials") or quasi-experimental designs be institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?

RCTs and QEDs answer questions of impact, which are at the core of assessments of the effectiveness and efficiency of public investments. As such, they should be institutionalized into every public program and policy where appropriate. However, it is most critical to develop evidence of the impact of previously unproven programs. With limited public resources, it seems prudent to focus the effort and cost of rigorous evaluations on the programs that are not yet proven. Tiered evidence grants are an example of institutionalizing evaluation requirements while recognizing that different stages of program development require different types of evidence. These grants support innovation by providing some funding to promising programs that are not yet fully developed, but appropriately require rigorous evaluation using RCTs or QEDs when the program is ready to be scaled up to widespread use. It is important to recognize that other methods may be most appropriate for early program stages and to support program development and refinement before investing in more rigorous, and typically more costly, evaluations.

Focusing on the rigorous evaluation of unproven programs, some laws authorizing funding of public programs require RCT or QED evaluations of the programs (for example, the Workforce Innovation & Opportunity Act). In addition, some RFPs for federal grants to implement programs require that grantees participate in or implement their own evaluations. For example, grant programs including Race to the Top and School Improvement Grants required state cooperation with evaluations and facilitated the research on these programs. These regulations have been an important impetus for rigorous program evaluations that are much less common in Europe and elsewhere outside the United States. Nonetheless, there could be

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better enforcement by federal agencies or strengthening of these regulations by making participation in or cooperation with evaluation activities a condition for receipt of federal grant funds.

Mandated participation could improve the efficiency of federal program evaluation efforts by reducing recruiting costs. Recruiting sites for program evaluations when participation is voluntary is often difficult and expensive, because we must overcome sites' resistance to participate in RCT or QED evaluations and also gain cooperation against competing site priorities. Site recruitment can be especially challenging when grants are disbursed at the state level but programs are run locally (for example, education programs). Stronger enforcement and mandates for site participation in evaluation at all the necessary levels can help spur research, reduce evaluation costs, and improve the generalizability of study results by facilitating the recruitment of a more representative set of sites than are typically included in program evaluations.

Thank you again for this opportunity to answer these important questions. Should you have any questions about the contents of this submission, please contact me at PDecker@mathematica-mpr.com, or contact my colleague Carmen Ferro, public affairs manager at Mathematica Policy Research, at (202) 552-6405, or at cferro@mathematica-mpr.com.

Sincerely,
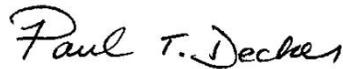
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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0325
Comment on FR Doc # 2016-22002

Submitter Information

Name: April Clyburne-Sherin

General Comment

In response to Question 13: What technological solutions from government or the private sector are relevant for facilitating data sharing and management?

The creation of clinicaltrials.gov was an important milestone for improving access to important clinical trial information that can be used to improve treatment and policy. Investing in the usability and interoperability of clinicaltrials.gov will promote more complete data and higher quality data to be shared.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0326
Comment on FR Doc # 2016-22002

Submitter Information

Name: Christianna BUrt

General Comment

I am a college sophomore. I am opposed to non-consensual data collection and the housing of personally identifiable information at the federal level. I watched the public hearing this week on YouTube. Please respect individual data rights. We are watching what you do

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0327
Comment on FR Doc # 2016-22002

Submitter Information

Name: Leonie Haimson
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  New York, NY, 10011
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General Comment

To the Commission:

Class Size Matters is a non-profit advocacy organization dedicated to providing information on the benefits of smaller classes in increasing student learning and narrowing the achievement gap.

Given that class size reduction is one of the few measurable education reforms proven to enhance student success, we believe it very important that federal data reporting of aggregate student data be improved. This data is especially unreliable, and is often years overdue when it is released by the Department. Class sizes should also be collected for individual classrooms because there is much variability within schools. The size of a class in which a child spends his or her time determines the quality of the environment and the instruction that the student receives. For some purposes, these can be aggregated to school averages, but these are not as clearly connected to learning or other student outcomes. (Note that these are simple and easy to collect, since every teacher has a class roster with this information.) Special education class sizes should be reported separately.

In addition, many of the independent evaluations of programs funded by the US Department of Education through the Investing in Innovation Fund (i3) grant, are being suppressed because federal officials are waiting for its grantees to release them, even though the evaluations were also paid for with federal dollars. The US ED only lists links to evaluations of 33 of the 49 I3 grantees from 2010, financed with $646 million, and some of the links provided are to summaries rather than the actual evaluations. Only four evaluations of 23 grantees in 2011 funded with $148 million are listed. See http://innovation.ed.gov/files/2016/09/i3evaluations-160913.xls

When i3 officials were asked why, the response was "I 3 provides links to evaluations that are currently publicly available. The i3 team continues to work with grantees ... to make their evaluation findings publicly available." We urge you to ensure that all independent evaluations paid for with federal taxpayer funds be immediately released.

Finally, the FOIA log of the US Department of Education shows there are hundreds of public records requests going back as far as 2010 that have not been fulfilled.

In conclusion, we strongly urge the CEP to recommend that the U.S. Department of Education improve their monitoring, record-keeping and reporting of aggregate data when it comes to class sizes, accelerate their responses to public records requests, and release all independent evaluations of educational programs they have funded - all of which can be accomplished without the collection of any personal student information.

Yours,

Leonie Haimson
Executive Director, Class Size Matters

Attachments

CSM comments to CEP 12.14.16

Class Size Matters
124 Waverly Pl., New York, NY 10011
Phone: 212-529-3539
info@classsizematters.org
www.classsizematters.org

The Commission on Evidence-Based Policymaking (CEP)
Input@cep.gov

December 14, 2016

To the Commission:

Class Size Matters is a non-profit advocacy organization dedicated to providing information on the benefits of smaller classes in increasing student learning and narrowing the achievement gap.

Given that class size reduction is one of the few measurable education reforms proven to enhance student success, we believe it very important that federal data reporting of aggregate student data be improved. This data is especially unreliable, and is often years overdue when it is released by the Department. Class sizes should also be collected for individual classrooms because there is much variability within schools. The size of a class in which a child spends his or her time determines the quality of the environment and the instruction that the student receives. For some purposes, these can be aggregated to school averages, but these are not as clearly connected to learning or other student outcomes. (Note that these are simple and easy to collect, since every teacher has a class roster with this information.) Special education class sizes should be reported separately.

In addition, many of the independent evaluations of programs funded by the US Department of Education through the Investing in Innovation Fund (*i3*) grant, are being suppressed because federal officials are waiting for its grantees to release them, even though the evaluations were also paid for with federal dollars.[1] We urge you to ensure that all independent evaluations paid for with federal taxpayer funds be immediately released.

Finally, the FOIA log of the US Department of Education shows there are hundreds of public records requests going back as far as 2010 that have not been fulfilled.[2]

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[1] The US ED only lists links to evaluations of 33 of the 49 I3 grantees from 2010, financed with $646 million, and some of the links provided are to summaries rather than the actual evaluations. Only four evaluations of 23 grantees in 2011 funded with $148 million are listed. http://innovation.ed.gov/files/2016/09/i3evaluations-160913.xls When i3 officials were asked why, the response was "*I 3 provides links to evaluations that are currently publicly available. The i3 team continues to work with grantees … to make their evaluation findings publicly available.*" (i3@ed.gov email to Leonie Haimson, August 19, 2016.)

[2] http://www2.ed.gov/policy/gen/leg/foia/request-status-log.pdf

In conclusion, we strongly urge the CEP to recommend that the U.S. Department of Education improve their monitoring, record-keeping and reporting of aggregate data when it comes to class sizes, accelerate their responses to public records requests, and release all independent evaluations of educational programs they have funded – all of which can be accomplished without the collection of any personal student information.

Yours,

Leonie Haimson
Executive Director

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0328
Comment on FR Doc # 2016-22002

Submitter Information

Name: Lynne Taylor

General Comment

We do not need more data mining which combines information from WIOA and ESSA in the guise of a better educated workforce. We do not need or support the LADDER Act which is in the Senate HELP committee and would use this private information in ways to implement the planned National Workforce Plan Council, as laid out in S3174.

Our nation is only shifting the focus of education from academic to workforce based to satisfy the US/UN 2015 Sustainable Development Goals agreement which calls for a 21st century globally prepared citizen worker.

We MUST stop the UN efforts to strip the US of its education/its heritage/its people's private information!

I am including a chart I have created after researching not only S3174, but the other related bills which will help create education/workforce based files of information on our students, of all ages!

Attachments

fededoverreachchart

Senate Bill 3174, the LADDER Act (Leveling Access to Demonstrated Drivers of Employment Results)	House Resolution 5587, Strengthening Career Tech Education for the 21st Century; Senate Bill 3271, Workforce Advance Act (Both are to reauthorize the Perkins Act of 2006) Introduced 7/16	Senate Bill 3190, Strengthening Our Rural Health Workforce Act of 2016
* Introduced July 2016 and in the Senate's HELP Committee until further notice, yet Fiscal Years 2017-2026 Funds have been already appropriated. *Solidifies the data tracking, mining, and sharing capabilities between the SLDS and the WQDI (joins education and workforce together for streamlined work based education from Pre K to Career) * Creates an Executive Branch Level (independent) Council which will be made up of the Secretaries of the federal agencies of: Agriculture, Education, Labor, Health and Human Services, Housing and Urban Development, Treasury, Vet Affairs, and Transportation; Atty. General, Director of Equal Opportunity Com.; Com. of Social Security; Director of Congress' Office/Budget Mgmt OR their designees. *Council's powers will create MORE federal level overreach into local and state level government, private sector entities, and create a National Workforce Plan submitted to the President and Congress for approval.	*HR 5587 is the longer of the two Bills and contains many more federal overreaching requirements or mandates for state and local levels of government; S3271 focuses more on the federal overreach of data mining for aligning education to Career Tech Education (adult version of Common Core), STEM, and more. *HR 5587 goes into effect 7/1/17; S3271 gives no effective date. *HR 5587 will envelop all school choices, but public and private, including home education; S3271 mandates contracts between secondary education and post-secondary ed. institutions. Both increases fed led career exploration activities. *HR5587 awards grants to states with mandatory CTE teacher effectiveness clauses (all ages). Mandates of CTE state plans must align with WIOA of 2014, ESSA of 2015, HEA of 2008; S3271 mandates CBE education aligned to WIOA of 2014, ESSA of 2015, HEA of 2008 *HR5587 will use Pay for Success (embedded in ESSA of 2015) to target Special Needs students/teachers for CTE, Universal Design of Learning (embedded in HEA of 2008) is also included for all students for CTE; S3271 mandates increased P3 overreach into education, regardless of choice. *Both also tie back to the use of Title One funding. Thus states will 'compete' against each other for money.	*Introduced 7/16; no effective date is given. *Ties directly to the Patient Protection and Affordable Care Act, amends the National Health Care Workforce Commission, relates to H2713 (Nurses Workforce funding, also introduced 7/16), ties directly to the Social Security Act, the Public Health Service Act, and Titles 1 and 8 funding. *Embeds WIOA, ESSA, HEA, STEM. *Increases mandates from the federal level for mental health and behavior interventions. *Increases and incentivizes new ROI (Return on Investment) models for assessing students. *Encourges more P3 relationships in health care. Clarifies 'training tracks' for students. *Uses CBE/CCSS/CTE accrediting national groups for alignment.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0329
Comment on FR Doc # 2016-22002

Submitter Information

Name: Abigail Potter

General Comment

See attached file(s)

Attachments

American Trucking Associations Comments on Evidence Based Policymaking Nov 2016

AMERICAN TRUCKING ASSOCIATIONS
950 N. Glebe Road ★ Suite 210 ★ Arlington, VA ★ 22203-4181
www.trucking.org

November 14, 2016

Via **www.regulations.gov**

Ms. Shelly Martinez
Executive Director
Commission on Evidence-Based Policymaking
U.S. Department of Commerce
1401 Constitution Ave., NW
Washington, D.C. 20230

Re: Docket No. 160907825-6825-01: Request for Comments for Commission on Evidence-Based Policymaking, Department of Commerce

Dear Ms. Martinez:

I am writing on behalf of the American Trucking Associations[1] (ATA) in response to the Department of Commerce's September 14, 2016 *Request for Comments for Commission on Evidence-Based Policymaking* [2]. ATA is vitally interested in ensuring that all policymaking decisions are based on clear, evidence-based data. ATA strongly supports the Commission on Evidence-Based Policymaking's mission to find ways to strengthen evidence-building to inform program and policy design and implementation. We believe that improving evidence-based policymaking will continue to support the creation of effective regulations that are based on strong evidence and have a cost benefit to all stakeholders and the public. Below are ATA's comments to most of the Commission questions.

Overarching Questions
1. *Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.*

ATA believes there are a couple key premises that the Commission should consider. First, industry data is extremely confidential and sensitive. Data should only be collected for clear and transparent purposes; not simply to collect and mine data for unknown, undirected or extraneous purposes. Second, protecting data should include rules to protect government-sponsored industry data from non-specified uses. Private sector intellectual property and company practices should be exempted from Freedom of Information Act (FOIA) and sunshine law requests. The Commission should model their recommendations after certain federal agencies that already have such exemptions including Census and the GAO.

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[1] ATA is a united federation of motor carriers, state trucking associations, and national trucking conferences created to promote and protect the interest of the trucking industry. Directly and through its affiliated organizations, ATA represents more than 30,000 motor carriers in the United States, Canada, and Mexico encompassing every type of motor carrier operation.
[2] Request for Comments for the Commission on Evidence-Based Policymaking, 81 Federal Register No. 178, September 14, 2016.

TRUCKING ▶
Moves America Forward

Comments of the American Trucking Associations
Page 2 of 4

2. Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?

As previously mentioned, the bare minimum is complete anonymization of the data. For example, it would be completely disingenuous to strip away a data provider's name and contact info, and then list the provider's demographics as "a large software provider in Redmond, Washington". Consequently, sophisticated cypher and anonymization processes and protocols must be used.

Data Infrastructure and Access

3. Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?

Existing government data infrastructure should be: (1) Housed outside of federal hardware/ infrastructure; (2) "Appropriate Use" terms must be developed a prior to requests; (3) "Appropriate Use" terms must preclude for-profit and business enterprise motivations and purposes; (4) Access accounts must be submitted and approved by third-party reviewers; and (5) Approved accounts must abide by the Terms of Service (TOS).

4. What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation, and analysis purposes?

There should be no data access by requestors until account requests and research objectives have been vetted and approved — based on the TOS.

5. What challenges currently exist in linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

There are very few examples of successful, accessible state-federal database mergers. Most examples are state-based integrations that utilize third-parties such as American Association of Motor Vehicle Administrators (AAMVA) and American Association of State Highway and Transportation Officials (AASHTO). In trucking, special programs such as International Fuel Tax Agreement (IFTA) and International Registration Plan (IRP) are organized as joint power agreements to facilitate integration and distribution. However, secondary laws such as IRS Tax Code preclude the collection and dissemination of certain data (such as tax data within the International Fuel Tax Agreement).

6. Should a single or multiple clearinghouse(s) for administrative and survey data be established to improve evidence-based policymaking?

ATA questions what benefits or limitations are likely to be encountered in either approach. The greater the number of "clearinghouses" used to store and manage the data, the greater the likelihood that inappropriate dissemination or access occurs. A central clearinghouse, outside of government, improves the likelihood that data is adequately protected.

Comments of the American Trucking Associations
Page 3 of 4

7. What data should be included in a potential U.S. government data clearinghouse(s)? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

A thorough analysis must first be conducted of FOIA exemptions and federal legal limitations on data collection and/or dissemination. As noted, tax and financial data have very strict controls. Certain monitoring and evaluation agencies such as GAO and the Bureau of the Census are allowed to collect data outside of the FOIA/sunshine expectations; this enabling legislation should be closely reviewed and replicated as appropriate.

8. What factors or strategies should the Commission consider for how a clearinghouse(s) could be self-funded? What successful examples exist for self-financing related to similar purposes?

The ATA does not support a "self-funded" entity or program that collects sensitive industry data, since the program/entity would be primarily, financially motivated to broadly disseminate confidential data. The entity would likely err on the side of loose interpretation of the "appropriate use" terms and account requests, rather than, first and foremost, protecting the integrity of the confidential data.

9. What specific administrative or legal barriers currently exist for accessing survey and administrative data?

As stated previously, a thorough review and analysis of various data collection programs can best answer this. For example, the Commodity Flow Survey and the National Household Travel Survey – both collect, but also limit access to, confidential information.

10. How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions?"

It is extremely difficult, but important, to define "qualified researchers". Persons with PhDs may appear to be "qualified" but may have underlying financial or political motivations. More important than "qualifications" would be "research objective". This would allow the third-party entity to assess both the motivations as well as the societal and industry benefits associated with the request.

11. How might integration of administrative and survey data in a clearinghouse affect the risk of unintentional or unauthorized access or release of personally-identifiable information, confidential business information, or other identifiable records? How can identifiable information be best protected to ensure the privacy and confidentiality of individual or business data in a clearinghouse?

The survey form, hardware/software and data collection protocols should all be designed around the "Appropriate Use" terms -- and either not collect, strip away, or firewalled (in a separate server) information that is either confidential or extraneous. This should be done prior to centralizing and managing account requests and research access.

12. If a clearinghouse were created, what types of restrictions should be placed on the uses of data in the clearinghouse by "qualified researchers and institutions?"

Previously answered in question 10.

Comments of the American Trucking Associations
Page 4 of 4

14. What incentives may best facilitate interagency sharing of information to improve programmatic effectiveness and enhance data accuracy and comprehensiveness?

Government agencies should be required to enter into inter-agency "appropriate use" agreements, since FOIA does not prohibit inter-agency data transfers.

In conclusion, ATA supports the Commission's mission. However, we hope that in developing recommendations that the Commission considers all of the privacy, legal, and technical questions. Thank you for the opportunity to comment on this important matter. If you have any questions or concerns, please do not hesitate to contact me at apotter@trucking.org or 703-838-1847.

Sincerely,

Abigail S. Potter

PUBLIC SUBMISSION

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Posted: December 15, 2016
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Submission Type: Web

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0330
Comment on FR Doc # 2016-22002

Submitter Information

Name: Robin Devey
Address:
  Orem, UT, 84058
Email: robindevey@gmail.com

General Comment

Our nation must tighten data privacy rules in every respect. Big corporations stand to gain a lot of money off of our children's data are in favor the loosening of data privacy. Please leave address information, and other such sensitive information, at the local level where it belongs.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0331
Comment on FR Doc # 2016-22002

Submitter Information

Name: Caroline Whistler

General Comment

See attached file(s)

Attachments

Third Sector Response to CEP Request

Third Sector
capital partners

December 14, 2016

Third Sector Capital Partners, Inc. Comments to the Commission on Evidence-Based Policymaking
Docket ID USBC–2016–0003

Third Sector Capital Partners, Inc. ("Third Sector") is pleased to provide comments on the work of the Commission of Evidence-Based Policymaking. Third Sector applauds the Commission's efforts to thoughtfully develop best practices to increase the availability and use of government data in support of evidence-building activities related to government programs and policies, while protecting the privacy and confidentiality of such data.

Third Sector is a nonprofit advisory services firm that leads governments, high-performing nonprofits, and private funders in building evidence-based initiatives that address society's most persistent challenges. Our ultimate goal is to accelerate America's transition to a performance-based social sector. Through our work with communities across the country that are exploring and launching Pay for Success projects, as well as our newest efforts to improve the data infrastructure that supports these projects, Third Sector has a deep understanding of the complexities that exist in creating and implementing evidence-based policy.

The belief that decisions about social programs must be made deliberately and based on evidence is at the core of our work. That being said, we must be equally deliberate and evidence-based when deciding to reduce or eliminate existing funding for programs; programs should no more be cut because leaders are skeptical that they are effective than they should be funded based on optimism alone. As more public policies are developed with outcomes-based requirements, we must recognize that those who are actually delivering critical services in the field still face significant challenges in delivering evidence-based, data-driven services. We cannot impose a higher bar on these critical service-providers without assuring that they have the technical capacity, data access, and resources to reach that bar.

Second, how existing federal funding is appropriated will be critical to the continued growth of evidence-based practices. At one time, models like Pay for Success (PFS) required new appropriations in order for state and local governments to promise to make success payments. Existing appropriations were tied to fee-for-service and other legacy paradigms. Recently, however, existing funding streams are being "PFS-enabled." For instance, through the Workforce Innovation & Opportunity Act (WIOA), existing federal dollars are being made available to states to re-allocate to PFS. This is a critical development.

An obstacle to taking advantage of PFS-enabled funding streams, however, is that states essentially must ask service-providers to make part of their existing allocations contingent on outcomes with little "upside." Practical implementation for models like PFS is a complicated and challenging process for organizations still needing to actively serve people in need. So in addition to making funding "PFS-enabled," Congress should consider including mandated PFS social programming with any new initiative. For example, if there is a new infrastructure program, it should include evidence-based PFS programming around workforce development and should consider offering additional funding to initially make bonus payments to those providers who reach outcomes and/or provide technical assistance to those providers willing to enter into contingent contracts. Mandatory use of PFS contracting could then be feathered in over time.

Turning to evaluation, we also know that caution must be taken about how we define success. This work must be approached with a certain amount of flexibility, while assuring that we create a feedback loop that allows for programs to continuously improve their work delivering outcomes to those they serve.

A well-crafted randomized control trial (RCT) is the best way to definitely show that a program works -- in a certain place, at a certain time with a certain population. We must also, acknowledge, however, what it does not show: if that program will be effective in another place or time or with a different or more narrowly defined population. There is a real danger that we will be too quick to determine that a program does not work and deprive people in real need of an effective intervention.

RCTs also far too often do not provide useful information to providers. They should be paired with program evaluation and enhanced access to data that provides an opportunity to refine services to make them more effective. The accountability that is inherent in RCT's must be balanced with a bias to continuous learning, openness, and improvement. It is only when evaluation is not used solely to judge programmatic quality that providers and those who they serve will reap the full value of an outcomes-oriented mindset for government.

Finally, in order to best measure the impact social programs are having, existing government data infrastructure must be modified to better use and access administrative and survey data. The Commission should encourage better access and linking of disparate federal administrative data. Through Third Sector's preliminary work in creating better data infrastructure, we believe that developing this area will allow for high-quality program evaluation which in return can assure that evidence-based programs are being accurately measured and evolving to meet the needs of those they are serving.

Third Sector is encouraged by the Commission's work and the questions it has put forward. We strongly believe that a connection between evidence-based policy and an outcomes-oriented mindset is needed in government in order to develop effective and impactful policy. As evidence-based outcomes are integrated into public policy, we must assure that social services are still available to those in need. However, we hope that data, research, and evaluation are used in a thoughtful manner to improve public programs and policies.

Thank you for allowing us the opportunity to comment.

Sincerely,

Caroline Whistler
President & Co-Founder
Third Sector Capital Partners, Inc.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0332
Comment on FR Doc # 2016-22002

Submitter Information

Name: Alice Linahan
Address:
   Argyle, TX, 76226
Email: alinahan@verizon.net

General Comment

As a mom of 3 students, I do not give consent for their private data to be collected by the state or federal government. I did not have my children to be "human capital" for the government.

As stated by Emmett McGroarty, director of education at the American Principles Project... "The government has no constitutional, statutory, or moral right to collect data, especially highly personal and sensitive socioemotional data on our children."

Parents are waking up and will stand up against all elected officials and government officials who violate the privacy of our children and their teachers.

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0333
Comment on FR Doc # 2016-22002

Submitter Information

Name: Jeff Davis

General Comment

I believe in informed consent. I oppose non-consensual data mining of children in schools.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0334
Comment on FR Doc # 2016-22002

Submitter Information

Name: anonymous anonymous

General Comment

I oppose collecting data without informed consent.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0335
Comment on FR Doc # 2016-22002

Submitter Information

Name: GINGER RUSSELL

General Comment

I am appalled that our government has forsaken the Constitution with the Department of Education and are now creating dossiers on our children without our consent. This needs to stop immediately.

Children are no longer taught to succeed on their own accord but are being indoctrinated and molded into what the Government them to become. PLEASE STOP THIS!!!

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0336
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

This country was founded on some amazing principles. The most amazing is that individuals could be free to do as they please. Government did not control the people, document excessively or prohibit such ideas as religion, personal character etc. Currently we see government trying to gain more access to children and adults alike. Which is creating a national database. Who has access to all of this government documentation in the digital format? Is it easily traceable? What is the purpose for this data? Will it identify certain people, ethnicity, gender, etc? Can it tell who the child is, where they live, what their family structure is like? If it does what purpose does it serve?
Let me tell you how I view this...DANGEROUS IDEA. It is unacceptable and unamerican. We are a free market, free ideas, freedom should abound everywhere. This idea breeds control, corruption, manipulation etc. There are no safe guards when it comes to digital content. It does not exist. To place our children at the front and parade them in front of everyone from the day they are born is WRONG! Children and adults alike deserve privacy and NO data collection. Our children should have a future that they decide. Not a future dictated by data, data, and more data that proves nothing except the past. You can not measure the human soul and it's worth.
Data collection has the potential to turn against the children who are our future. And mark my words, bills like this will be turned against our children. The children will suffer with poverty, unemployment etc if they are graded, data collected and data mined.

We are seeing that right now...many employers are requesting access to facebook, snapchat, twitter etc to see if a person is a deemable candidate for hire. It shows the past not the potential of a person. WHICH IS WRONG TO DO.
America is suppose to be the land of second, third , fourth chances to make a better life. This prevents and destroys liberty for the upcoming generations. They deserve a chance to success, failure and success again without being destroyed by data.

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0337
Comment on FR Doc # 2016-22002

Submitter Information

Name: James Coleman
Address:
  Smyrna, TN, 37167
Email: lillip@comcast.net

General Comment

No data mining. No tracking. No private entities with any access to educational data of any kind. Not even with informed consent. Sharing of data with the private sector will never end with any outcome other than to allow private concerns to monetarily benefit from data, gathered by public funds, through selling it to other private entities. Children are malleable and often startlingly changeable over time and deserve the right to develop in a personal, private sphere.

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0338
Comment on FR Doc # 2016-22002

Submitter Information

Name: Ann Marie Banfield

General Comment

I believe in informed consent. I oppose non-consensual data mining.

PUBLIC SUBMISSION

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Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0339
Comment on FR Doc # 2016-22002

Submitter Information

Name: Jan Bast

General Comment

"I believe in informed consent. I oppose non-consensual data mining. Please consider what this will lead to.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0340
Comment on FR Doc # 2016-22002

Submitter Information

Name: Tamara Scott

General Comment

Every parent deserves the right of informed consent before any data or information is collected concerning their minor children. It is ethically wrong to miss-use the education system as a vehicle to confiscate non-consensual data mining. To amass information without one's knowledge strikes at the heart of America's foundations and our liberties as a private citizenry. This is government run amok and exactly why the states overwhelmingly sent a mandate to drain the swamp in DC.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0341
Comment on FR Doc # 2016-22002

Submitter Information

Name: Heather Stancil

General Comment

I oppose non-consensual data mining of either adults or our children. We are not commodities. Stop this madness.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0342
Comment on FR Doc # 2016-22002

Submitter Information

Name: Heather Hicks
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  Forked River, 08731
Email: heather.hicks@comcast.net

General Comment

Docket ID USBC-2016-0003-0001 "Commission on Evidence-Based Policymaking Comments"

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.

The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.

In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors

but also their families and friends.

The US Department of Education has been found to have especially weak security standards in its collection and storage of student data, and received a grade of D for its security protections.

In addition, preK-12 student data currently collected by state departments of education that would potentially be shared with the federal government include upwards of 700 highly sensitive personal data elements, including students' immigrant status, disabilities, disciplinary records, and homelessness data.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from PreK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

Sincerely,
Heather Hicks
Special Education Teacher, NJ
Parents Across America- Ocean County NJ

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0343
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

These comments submitted by the American Educational Research Association (AERA) replace an earlier comment that AERA submitted on November 14, 2016.

Attachments

AERA Comments to CEP_FINAL SUBMISSION_12-14-16

December 14, 2016

Mr. Nick Hart
Policy and Research Director
Commission on Evidence-Based Policymaking
Nicholas.r.hart@census.gov

Docket ID: 160907825-6825-01 Commission on Evidence-Based Policymaking Comments

Dear Mr. Hart,

On behalf of the American Educational Research Association (AERA), I am pleased to have the opportunity to offer comments in response to the request from the Commission on Evidence-Based Policy to inform the Commission's work and provide feedback on core questions. The AERA is the major national scientific association of more than 25,000 faculty, researchers, graduate students, and other distinguished science professionals dedicated to advancing knowledge about education, encouraging scholarly inquiry related to education, and promoting the use of research to improve education and serve the public good. Founded in 1916, the association is committed to the highest standards of research rigor, integrity, and responsibility for research scientists, as reflected in such policy documents as AERA's research standards and code of ethics as well as longstanding programs to encourage data sharing and access consonant with responsible use.

Our members use and analyze federal statistics and data in their research and rely on the objectivity and trustworthiness of this information. AERA members are interested in increasing access to and usefulness of impartial and accurate information to best improve policy and practice decision making. Our division of Education Policy counts over 2,500 members and our Measurement and Research Methods division more than 3,000 research scientists. Also, AERA members participate in 25 established Special Interest Groups focused on various aspects of evaluation and statistics.

AERA applauds the Commission on Evidence-Based Policymaking for the comprehensive examination, careful consideration, and inclusive approach. Given the considerable expertise on the panel and the extensive feedback from the community both to these questions and in meetings and public hearings, we are responding selectively to questions only where AERA has specific examples in education to offer or a unique observation based on our own work in this area. We have tried to highlight some of the most useful examples from the decades of guidance and practice addressing these important questions. The Commission can play a critical leadership role in establishing how to expand access to administrative, survey, and linked data consonant with appropriate concerns for privacy and protecting confidentiality.

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The time is especially ripe for a fresh look under the current circumstances of expanded electronic access to wide-ranging information, growing capacity to examine this information efficiently, and rising costs in time and money in implementing major surveys. In just this past decade, we have seen promising uses of rapidly collected digital information, the transformation of administrative information largely in paper form to digitized administrative data systems, and a deeper appreciation that quality administrative data, well and widely utilized, can make for more robust research that can speak to policy and program development and implementation.

Fortunately, federal agencies have considerable experience using administrative data systems, linking data, and devising strategies for secure access and use. Furthermore, federal agencies have provided guidance about how best to expand use of administrative data systems with appropriate mechanisms for data protection and access commensurate with the level of risk. For over 30 years, the National Academies, most typically at the request of federal agencies, has examined and provided guidance on access to federal data assets aligned with privacy protection, confidentiality, and data security including useful examples, observations, and recommendations that can inform the Commission's work. See Appendix A.

In responding to your questions, we believe that many of the obstacles and challenges to evidence-based policymaking reside with linking data available in one state/jurisdiction, department, or survey to data in another domain or venue. Federal statistical agencies and state longitudinal data systems have made tremendous strides not only in creating secure and workable data infrastructure, but also in using those data to improve student outcomes. For example, since 2009, under the leadership of the National Center for Education Statistics, there has been considerable progress in the development of Common Education Data Standards (CEDS) for use in creating and maintaining statewide longitudinal data systems (SLDS). There also, however, needs to be attention to a data infrastructure that could enable the next level of using data to determine what works and where to invest our money. The most effective solution would be to develop and link to student indicators that could effectively allow policy analysts and researchers to follow students through their education experience and into the workforce.

Before turning to the specific questions, AERA would like to raise two very important issues:

The first relates to the necessity of protecting the vitality, autonomy, and independence of our statistical agencies. Consistent with recommendations offered in the National Academies of Sciences report, *Principles and Practices for a Federal Statistical Agency*, careful consideration must be given to the authority to protect agency independence from political or other undue outside influence.

In particular, "a strong position of independence" is one of its four key principles. The ensuing guidance for this principle includes the following:

> Authority to release statistical information and accompanying materials (including press releases) without prior clearance for the statistical content by department policy officials is essential so that there is no opportunity for or perception of political manipulation of any of the information. (p. 41)

> Such organizational aspects as direct access to the secretary of the agency's department and separate budgetary authority are neither necessary nor sufficient for a strong position of independence that protects a statistical agency from undue political influence, but they facilitate such independence. (p. 37)

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We urge you to consider the importance of the leadership of our federal statistical agencies. Not only must leadership reflect technical expertise and understanding of data use, but leaders should also have the autonomy and status to allow them to meaningfully advise agency heads and to insulate them from political influence. The Presidential appointment of directors of statistical agencies helps to ensure the accountability of these statistical agencies to Congress and to the public. Furthermore, these appointments provide for direct reporting on statistical indicators to the Office of the Secretary.

The second relates to the continued need for a student unit record system that can track students and provide legitimate access aligned with privacy protection. Simply put, students and families, policy makers, and the general public have a deep and legitimate need for high quality information about postsecondary education to inform everything from life-changing individual choices to public policies affecting a $500 billion sector of the economy. Unfortunately, in the United States, our postsecondary education data systems represent a complex patchwork of data collections and work-arounds that, even taken together, do not support these information needs.

The nation needs a student unit record system that captures the full experience of postsecondary education at the individual student level and allows for aggregation to the program, institution, and system levels to move our understanding of this vital component of our education and human capital development system to the modern era. We urge the Commission to consider this issue in a bi-partisan and scientifically sound way as a service to the nation and to the publics we serve.

Overarching Questions

1. Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

There is a history of practice and guidance from the federal statistical agencies and from the Office of Management and Budget (OMB) Office of Information and Regulatory Affairs (OIRA) directed to promoting the quality of federal data and statistical information to enhance evidence-based policies and programs. The leadership of OIRA's Statistical and Policy Office has been instrumental in the federal and international arenas that could be usefully extrapolated in considering how best to strengthen data quality, access, and use with state and local data.

In the domain of education programs and policy, the State Longitudinal Data Systems (SLDS) Grant Program, authorized by the Educational Technical Assistance Act of 2002, Title II of the statute that created the Institute of Education Sciences (IES), is arguably, a successful framework for state educational evidence-building.

Thanks to federal support, the program has enabled the successful design, development, implementation, and expansion of K12 and P-20W (early learning through the workforce) longitudinal data systems in nearly every state. In fact, 47 states have legislated state funds to continue the operations after using federal funds to build the infrastructure. As articulated by Robert Swiggum in his testimony before the House Education and Workforce Committee, SLDS

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enable states to efficiently and accurately manage, analyze, and use education data. In Georgia, SLDS have led to data-informed decisions to improve student learning and outcomes.

As part of a joint conference directed to developing model guidelines for use of longitudinal administration systems convened by AERA and the Organisation for Economic Co-operation and Development (OECD) in December 2015, representatives from administrative data systems described how linkages in data sets can provide for robust findings with policy implications. One model for the U.S. is the United Kingdom's Administrative Data Research Network, a repository of administrative linked and de-identified data sets made available to social science researchers under secure conditions. Data linked among multiple sources for approved research projects have provided relevant information for policy decisions with the goal of benefiting society. For example, the National Pupil Database—which connects data sources for exam results, attendance records, name of the school a child is attending with a student identifier—allows for decisions on how much money from the national education budget is given to particular local authorities and schools. Another project in process is linking data on unemployment benefits and successive sanctions with Scottish data on school attendance to determine whether there are unintended consequences to children when parents' unemployment benefits are stopped with the aim to encourage them to return to work.

2. Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?

Federal agencies and research organizations are successfully ensuring security and privacy of data by considering the nature of the data, having procedures for determining who has access to data and for what purpose as well as controlling the nature of the access, including location. Assuming that the risk is the ability to drill down and identify a particular student, the National Center for Education Statistics has systems in place to protect individual data, strip direct identifiers, and mask indirect indicators.

In fact, NCES has pioneered making available data sets with personally identifiable information (PII) to researchers, through restricted-use data licenses. Authorized users are subject to the laws, regulations, and penalties that apply to the NCES use of confidential data of up to $250,000 and six months in jail. The NCES Statistical Standards Program monitors the licensing process and inspections. IES reviews analysis of NCES data. The NCES website has extensive materials on data access to public use and restricted-use data, including a Restricted-Use Data Procedure Manual (NCES 2007 at http://nces.ed.gov/pubs96/96860rev.pdf)

The Interuniversity Consortium for Political and Social Research (ICPSR) has established a protocol for preserving respondent confidentiality that starts with the depositors of data, requiring documentation for information that could identify respondents, which could establish restricted use to the data. ICPSR offers four levels of restricted use: Traditional Restricted Data, Physical Data Enclave, Restricted Online Analysis, and Delayed Dissemination.

Data Infrastructure and Access

3. Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?

4. What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation, and analysis purposes?

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When considering best practices regarding data infrastructure, we encourage you to consult the OMB *Guidance for Providing and using Administrative Data for Statistical Purposes* (February 14), 2014. This document provides tools and detailed guidance on the interaction of the use of administrative data for statistical purposes with the Privacy Act requirement. In addition, *Sharing Data While Protecting Privacy* (M-11-02 of November 3, 2010), *Open Data Policy-Managing Information as an Asset* (M-13-13 of May 9, 2013), and *Next Steps in the Evidence and Innovation Agenda* (M-13-17 of July 26, 2013) are three useful OMB memoranda.

5. What challenges currently exist in linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

We addressed above the critical need for a student unit record system. Here we address your specific question. When students move to another state, either during PreK-12 or to attend college, a state has no way to follow these students. For many, the ultimate goal of education is to prepare individuals for a transition to the workforce and an independent and productive life. The only way to capture information about students who move from state to state would be to, in some non-identifying or masked way, have records that can be linked based on the student. The Integrated Postsecondary Education System (IPEDS) is an extremely useful widely used resource. Unfortunately, IPEDS data collection is limited to full-time students who begin their studies in the fall.

Looking specifically at NCES, efforts to access data in the state longitudinal data systems must be negotiated with each individual state. Even for states inclined to make every effort to share state-level data, laws and regulations regarding protections of student data privacy are sufficiently ambiguous leading states to err on the side of caution deciding against sharing data.

6. Should a single or multiple clearinghouse(s) for administrative and survey data be established to improve evidence-based policymaking? What benefits or limitations are likely to be encountered in either approach?

Subject to security concerns, a central repository for collected data is a good idea as it will facilitate administrative access and research. To maximize the value, data should be made accessible to responsible researchers. Support of a central clearinghouse does not mean that all federal agency data need to be physically stored in a single unit (or its cloud). It does, however, suggest that a single entity should be responsible for setting standards, tracking data assets, assessing risk, and ensuring appropriate levels of data access and management.

A significant benefit of a clearinghouse would be the opportunity to provide long-term safe storage of data. A fundamental part of the scientific process is verifying findings and testing new hypotheses using the same dataset, and premature destruction of the data can waste valuable resources and limit building cumulative and reproducible knowledge. Having the benefit of understanding the complete data picture, the management of the clearinghouse could provide some latitude and direction to educational agencies and research organizations to determine when data are no longer needed for the agreed upon scientific purposes and to retain identifiable datasets where necessary under strictly-controlled, secure conditions (as is done with other federal and state statistical and record-keeping systems).

8. What factors or strategies should the Commission consider for how a clearinghouse(s) could be self-funded? What successful examples exist for self-financing related to similar purposes?

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While still too early to tell if effective, the recently passed bipartisan reauthorization of the Elementary and Secondary Education Act (ESEA) includes Sec. 8601. Evaluations. This section requires IES to do evaluations of each program authorized in the Act. The legislation allows the Secretary to reserve .5 percent of the program account for the evaluation costs and dissemination of findings. In addition the section provides guidance on the design of evaluations.

> (a) RESERVATION OF FUNDS. – Except as provided in subsection (b) and (e), the Secretary, in consultation with the Director of the Institute of Education Sciences, may reserve not more than 0.5 percent of the amount appropriated for each program authorized under this Act to carry out activities under this section. (ESSA)

In addition to the cost of conducting evaluations, AERA encourages the Commission to think about the workforce capacity to most instructively conduct and interpret evaluations. IES has developed tremendous technical capacity in this regard, thanks to hiring flexibility permitted by their accepted service hiring authority.

9. What specific administrative or legal barriers currently exist for accessing survey and administrative data?

As mentioned in previous responses, numerous legal, regulatory, and operational barriers prevent federal agencies from linking to state data. Census and NCES have been required to approach each state individually to initiate data linkages. Even when states are motivated to share data, they are often advised against doing so due to legal concerns.

10. How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions?"

Administrative and survey data held by government agencies should be maximally available to qualified researchers and institutions. Users could be required to provide data use and management plans that would explicate the researcher's intentions for their data both during and after the research project. Such procedures are common among agencies and institutions that provide access under restricted conditions.

In thinking about safeguarding student data, the question of who is qualified to have access should include consideration of whether those who already collect and manage the data would benefit from additional training and capacity building. Meaningful training and support of government employees or other users would help build a culture of trust in schools and school systems and implement best practices in data privacy and security.

The Privacy Technical Assistance Center (PTAC) is a strong example of effective federal government tools to support local infrastructure and capacity building. PTAC provides great value to the field through its hotline and its guidance on such important issues as data breach response and model terms of service. This important role could be expanded to provide additional tools and resources to develop policies and best practices in transparency, governance, and privacy and security.

14. What incentives may best facilitate interagency sharing of information to improve programmatic effectiveness and enhance data accuracy and comprehensiveness?

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Interagency information sharing is presumably beneficial to all involved agencies. Removing obstacles might be akin to providing incentives. In addition to alleviating concerns about the legality of sharing information, agencies engaged in high-level analysis of data would benefit from the flexibility in hiring highly qualified staff to maximize the benefit of increasing access to data and effective data management plans.

Data Use in Program Design, Management, Research, Evaluation, and Analysis

15. What barriers currently exist for using survey and administrative data to support program management and/or evaluation activities?

Currently, administrative and legal barriers too often prevent the use of administrative data. For example, researchers looking to determine how certain P-12 programs may affect wages later in life are unable to access wage information readily available with IRS or the Social Security Administration. Even in cases where two federal agencies are able to reach an agreement to share wage data for a particular study, records are limited to individuals with a listed social security number, possibly biasing the findings. In some cases, soft matches, using name and birthdate may accurately identify individual administrative data without social security numbers. Unfortunately, soft matches are time consuming—preventing federal agencies from committing the time and resources to pursuing soft matches.

Users of survey data face different challenges. It is very expensive to collect survey data. Social and behavioral scientists have made great strides to improve sampling to enable survey data collectors to gather information from a more limited population that can adequately represent a broader population.

Another barrier to using survey and administrative data is the variation in definitions. A successful effort to standardize terms, noted above, was the Common Education Data Standards. Led by NCES, CEDS are voluntarily developed common data standards for a key set of education data elements to streamline the exchange, comparison, and understanding of data within and across early learning through postsecondary and workforce settings.

19. To what extent should evaluations specifically with either experimental (sometimes referred to as "randomized control trials") or quasi-experimental designs be institutionalized in programs? What specific examples demonstrate where such institutionalization has been successful and what best practices exist for doing so?

AERA supports the use of the most rigorous methods consonant with the research issues and contexts of study and program evaluation. We appreciate the importance of randomized control trials and experimental and quasi-experimental designs. Rather than institutionalizing any single method, however, we encourage embracing the importance of using methods appropriate to the research or the program being evaluated. RCT designs are valuable methodologies in isolating effects when appropriate; nevertheless, many interventions and programs cannot be introduced under conditions that would differentially provide known benefits or potentially introduce risks that would negatively affect individuals.

Instead of emphasizing only randomized control trials, AERA offers the following definition of scientifically based research (SBR), which provides a broader definition grounded in scientific standards and principals. It was developed by an expert working group convened by the American Educational Research Association (AERA) in June 2008.

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Alternate Definition of Scientifically Based Research (SBR)
Supported by AERA Council, July 11, 2008

I. The term "principles of scientific research" means the use of rigorous, systematic, and objective methodologies to obtain reliable and valid knowledge. Specifically, such research requires:

   A. development of a logical, evidence-based chain of reasoning;

   B. methods appropriate to the questions posed;

   C. observational or experimental designs and instruments that provide reliable and generalizable findings;

   D. data and analysis adequate to support findings;

   E. explication of procedures and results clearly and in detail, including specification of the population to which the findings can be generalized;

   F. adherence to professional norms of peer review;

   G. dissemination of findings to contribute to scientific knowledge; and

   H. access to data for reanalysis, replication, and the opportunity to build on findings.

II. The examination of causal questions requires experimental designs using random assignment or quasi-experimental or other designs that substantially reduce plausible competing explanations for the obtained results. These include, but are not limited to, longitudinal designs, case control methods, statistical matching, or time series analyses. This standard applies especially to studies evaluating the impacts of policies and programs on educational outcomes.

III. The term "scientifically based research" includes basic research, applied research, and evaluation research in which the rationale, design, and interpretation are developed in accordance with the scientific principles laid out above. The term applies to all mechanisms of federal research support, whether field-initiated or directed.

This definition is compatible with the language in the recently reauthorized ESSA that commends "impact evaluations that use experimental or quasi-experimental designs, where practicable and appropriate, and other rigorous methodologies that permit the strongest possible causal inference."

We wish to conclude with four guiding principles for the Commission's consideration as you proceed with your essential work.

1. Define 'evidence' and 'effectiveness' broadly to account for the spectrum of outcomes significant to assessing program and policy goals.

2. Ensure a robust understanding of the methodologies essential to studying effectiveness, short- and long-term consequences, and unintended effects. These would include but not be limited to experimental and quasi-experimental methods, longitudinal designs, statistical matching, and so forth.

3. Examine and invest in making accessible federal data assets, including administrative information, under institutional arrangements and data use agreements that maximize the

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capacity to examine policies and programs consonant with privacy provisions and confidentiality protections. Review current data use agreements and data management plans to maximize access under conditions of data security.

4. Evaluate the leadership of statistical agencies, maximizing autonomy to allow for expert advice based on sound evidence and to safeguard statistical agencies from political influence. Leadership should reflect technical expertise and understanding of data use.

AERA very much supports the Commission's hard work and open approach to this complex and ambitious task. We appreciate the enormous progress that you are making in promoting sound policy and programs through greater secure and responsible use of data systems. We welcome helping and supporting you in that effort.

Sincerely,

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Appendix A
Reports on Protecting Participants and Facilitating Research
from the National Academies
With Additions from document initially prepared in October 2011
by Dr. Connie Citro, Committee on National Statistics

The challenge of protecting human subjects in biomedical and social and behavioral sciences research while facilitating responsible research and access to research data has engaged the attention of federal agencies, the National Academies, and the scientific community for decades. Below is a chronological list of major reports from the National Research Council and the Institute of Medicine.

National Research Council. (1979). *Privacy and confidentiality as factors in survey response*. Washington, DC: National Academy of Sciences.

National Research Council. (1985). *Sharing research data*. Washington, DC: National Academy Press.

National Research Council. (1993). *Private lives and public policies: Confidentiality and accessibility of government statistics*. Washington, DC: National Academy Press

National Research Council. (2000). *Improving access to and confidentiality of research data: Report of a workshop*. Washington, D.C.: National Academy Press.

Institute of Medicine. (2000). *Protecting data privacy in health services research*. Washington, DC: National Academy Press.

Institute of Medicine. (2001). *Preserving public trust: accreditation and human research participant protection programs.* Washington, DC: National Academy Press.

Institute of Medicine. (2002). *Responsible research: a systems approach to protecting research participants.* Washington, DC: The National Academies Press.

National Research Council. (2003). *Protecting participants and facilitating social and behavioral sciences research.* Washington, DC: The National Academies Press.

Institute of Medicine. (2004). *The ethical conduct of clinical research involving children*. Washington, DC: The National Academies press.

National Research Council and Institute of Medicine. (2005). *Ethical considerations for research on housing-related health hazards involving children.* Washington, DC: The National Academies Press.

National Research Council. (2005). *Expanding access to research data: Reconciling risks and opportunities.* Washington, DC: The National Academies Press.

Institute of Medicine. (2006). *Effect of the HIPAA privacy rule on health research: Proceedings of a workshop presented to the National Cancer Policy Forum*. Washington, DC: The National Academies Press.

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National Research Council. (2006). *Improving business statistics through interagency data sharing: Summary of a workshop.* Washington, DC: The National Academies Press.

National Research Council. (2007). *Putting people on the map: Protecting confidentiality with linked social-spatial data.* Washington, DC: The National Academies Press.
National Research Council. (2007). *Engaging privacy and information technology in a digital age.* Washington, DC: The National Academies Press.

Institute of Medicine. (2007). *Ethical considerations for research involving prisoners.* Washington, DC: The National Academies Press.

National Research Council. (2007). *Understanding business dynamics: An integrated data system for America's future.* Washington, DC: The National Academies Press.

Institute of Medicine. (2009). *Beyond the HIPAA privacy rule: enhancing privacy, improving health through research.* Washington, DC: The National Academies Press.

National Research Council. (2009). *Ensuring the integrity, accessibility and stewardship of research data in the digital age.* Washington, DC: The National Academies Press.

National Research Council. (2009). *Principles and practices for a federal statistical agency.* Washington, DC: The National Academies Press.

National Research Council. (2009). *Protecting student records and facilitating education research: A workshop summary.* Washington, DC: The National Academies Press.

National Research Council. (2010). *Conducting biosocial surveys: Collecting, storing, accessing, and protecting biospecimens and biodata.* Washington, DC: The National Academies Press.

National Research Council. (2010). *Protecting and accessing research data from the Survey of Earned Doctorates: a research summary.* Washington, DC: The National Academies Press.

National Research Council (2014). Proposed revisions to the common rule for the protection of human subjects in the behavioral and social sciences. Washington, DC: The National Academies Press.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0344
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

RE: Federal Register Notice #2016-22002
Submission to Commission on Evidence-Based Policymaking (CEP)

Please consider the following suggestions in response to your questions 3 and 4 in the
Federal Register Notice referenced above. My suggestions focus on the bipartisan
Digital Accountability and Transparency Act of 2014 (DATA Act) (PL 113-101). I
would be delighted to expand upon these suggestions upon request. My e-mail is
jrmacdonald@law.gwu.edu.

My suggestion in response to Question 3: DATA Act implementation is emerging as a
best practice for the development of data standards and new data systems. The DATA
Act is really about describing federal dollars using the same words and definitions (or
taxonomy) about the "who, what, when, where, and how" federal funds are being spent.
The taxonomy has been made public. Federal spending data is soon to be made public
using the new taxonomy. The idea is that if the same words are used by all the people,
organizations, and systems in the money chain, then it becomes easier to follow the

money. The theory is that if citizens, federal staff, and policy-makers can "follow the money," there will be less waste and better management of federal funds. The process of developing the taxonomy was open and collaborative. I suggest a similar collaborative process be used to develop a taxonomy for program datasets and especially for program evaluation reports. This new taxonomy should describe "who, what, when, where, and how" the evidence was developed. The taxonomy does not necessarily need to describe the conclusions or quality of the evaluation reports and datasets. My suggestion is that if the same words are used by all the people, organizations, and systems in the program implementation chain, then it becomes easier to "follow the evidence." In theory if citizens, federal staff, and policy-makers can "follow the evidence," they will focus more on promising practices and better implementation of federal programs.

My suggestion in response to Question 4: DATA Act implementation is showing positive signs for improving the exchange of data between different federal systems. The DATA Act approach is to use open data standards rather than an expensive new super system. The DATA Act Information Model Schema (DAIMS) helps the U.S. Treasury to take information from multiple agency systems for publication on a new website called USAspending.gov. This data is also to be made available as an open dataset on data.gov. As mentioned in my previous suggestion, a process similar to DATA Act process could be used to develop a taxonomy for program evaluation reports and datasets used for evidence-based policy making. I suggest that an "evidence-based policy information model schema" or similar would make it easier and less expensive to develop new public or private systems or processes to manage evidence. Additionally, the words (or taxonomies or standards) used to describe both DATA Act information and for program data and documents, it may become easier to link spending information with program implementation and performance information. I suggest that the benefits of this linking may include more cost-savvy program decisions and improved decision-making by congress on where to allocate resources.

Thank you for your kind attention to these suggestions.

[End.]

Attachments

CEP_JRMacdonald_12-14-16

J. Ruairi Macdonald, LLM
Student, Ph.D. (Program Evaluation)
George Washington University
Trachtenberg School of Public Policy and Public Administration
805 21st St. NW, Suite 601
Washington, DC 20052

December 14, 2016

RE: Federal Register Notice #2016-22002
Submission to Commission on Evidence-Based Policymaking (CEP)

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Thank you for your kind attention to these suggestions.

[End.]

J. Ruairi Macdonald jrmacdonald@law.gwu.edu 12-14-16

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0345
Comment on FR Doc # 2016-22002

Submitter Information

Name: Andrew Barnett

General Comment

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.
The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.
In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors but also their families and friends.
The US Department of Education has been found to have especially weak security standards in its collection and storage of student data, and received a grade of D for its security protections.
In addition, preK-12 student data currently collected by state departments of education that would potentially be shared with the federal government include upwards of 700 highly sensitive personal data elements, including students' immigrant status, disabilities, disciplinary records, and homelessness data.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from PreK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.
I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.
Yours, [name, state, and organization affiliation if any]

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0346
Comment on FR Doc # 2016-22002

Submitter Information

Name: K Connor

General Comment

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.
The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.
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I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from PreK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.
I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0347
Comment on FR Doc # 2016-22002

Submitter Information

Name: Hilary Shager
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   Madison, WI, 53706
Email: hshager@lafollette.wisc.edu

General Comment

This semester, in a new course at the University of Wisconsin-Madison, Robert M. La Follette School of Public Affairs, "Evidence-Based Policymaking," 15 master of public affairs (MPA) students studied the following topics:

1) What does "evidence-based" mean? What are different kinds of evidence, and how are they useful? How does one judge the rigor of research evidence?
2) What is the difference between an education-based approach to working with policymakers and an advocacy-based approach?
3) What are good strategies for communicating research to policymakers (including written and oral presentations, data visualization)?
4) What are examples of successful evidence-based policymaking efforts?
5) What are the limits of using research in policymaking?

We have followed the activities of the Commission and offer our public comments in the attached document.

Attachments

Commission Public Comments

To: The Commission on Evidence-Based Policymaking

From: Public Affairs 974 Class: Evidence-Based Policymaking at the University of Wisconsin Madison, Robert M. La Follette School of Public Affairs

Overarching Questions:

- We have some general questions that we hope the Commission will address:
  - What constitutes quality in evidence?
  - What makes the results from a study valid?
  - What are the Commission's standards for "good evidence"?

Data Infrastructure and Access:

- The Commission should help promote and facilitate partnerships between government entities and universities, to encourage the use of administrative data and data preparation, management, and analysis. The University of Wisconsin-Madison has several great examples of these types of partnerships; for example, the Institute for Research on Poverty has been merging administrative data sets and developing protocols for data quality and confidentiality for years. These types of partnerships not only lead to effective data cleaning and processing, but also provide a strong pool of researchers access to the data, to be used to address some of society's thorniest problems.

- A single database, including both administrative and survey-based data could improve evidence-based policymaking. Right now, many useful data sources are difficult to access (e.g., only through universities or specialized subscriptions) and expensive. If such data were made public, one would have to consider the consequences for these types of organizations that rely on such data fees as revenue sources. A single database would likely encourage more widespread use of the resource among policymakers at all levels, as well as the general public. Privacy is certainly also a concern; however, there are already many government data warehouses with sound privacy practices that could serve as models.

- We had a number of discussions about data privacy and concerns about data being used in ways that could potentially harm research subjects (intentionally or unintentionally). However, it is also important to weigh concerns about privacy against the consequences of *not* using data to assist in the development and evaluation of policy and programs, or *not* leveraging data that is already collected, which could result in significant cost-savings to universities, states, and the federal government (thus, taxpayers). Some suggestions for building in privacy protections include de-identifying individual data as much as possible, allowing broader access to aggregated-only data.

Data Use in Program Design, Management, Research, Evaluation, and Analysis:

- It is important to discuss with and provide clarity to stakeholders about how data will be used. Collection of data can be burdensome and expensive, and is primarily done at the ground (program) level. If there is no "grand purpose" for collecting the data (i.e., how

will it be used; how is it helpful to programs), one can expect lower data quality, practitioner burnout, etc. We must work to build better partnerships between researchers and program implementers, and incentives for effective data collection and utilization.

- If a program or policy is found to be "ineffective" via evaluation or some other "evidence-based" context, it is important that the implementation of the program be closely examined. The conceptual effectiveness of a program may be sound, and the problem may be one of delivery. Modifying how that policy or program is delivered may be the route to take vs. discontinuing the program.

- It is important to build in program evaluation into program design and implementation, and programs should continue to be evaluated over time to provide a "feedback loop" for quality control and learning. However, some questions must also be addressed:
    o Who should oversee and review evaluation, and ensures ethical evaluation practices? Universities often have Institutional Review Boards, but what does this look like within programs, small organizations, or different levels of government?
    o How will the quality of evaluation be guaranteed?
    o How can privacy for participants be ensured?
    o Who will have access to the data?
    o How often is data updated (and, related, how valid are results given the age of data)?
    o How are "opt-out" processes developed and monitored, and how do they impact evaluation results?
    o Who is responsible for de-identifying data, and how are protocols established?

- Logic models help clarify program components and mechanisms and provide a clear, agreed-upon evaluation roadmap.

- One concern is that the most rigorous types of evidence-based standards may not be applicable to all situations. For example, RCT's may not be viable in victim services, and some populations (e.g., tribal populations) may be hesitant to comply with such protocols. Will services for these situations and groups be considered "lesser"? Not as strongly funded?

- Another issue is complexity of programming. Consider economic development—it may be very difficult to assess the myriad components in a community economic development strategy or to assess of the possible outcomes that could be affected. Sharing administrative data across agencies and programs seems key to truly understanding, defining, and replicating "what works" in this type of situation.

Instructor: Hilary Shager, PhD

Class Members:
Richelle Andrae
Danny Benson

David Boardman
Scott Coleman
Chad Farley
Andrew Fisher
Falon French
Angela Guarin
Kelly McDowell
Beth Miller
Sam Rebenstorf
Mitchell Running
Sara Sanders
Ken Smith
Karina Virrueta

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0348
Comment on FR Doc # 2016-22002

Submitter Information

Name: Marcia Hora

General Comment

I believe in informed consent. I oppose non-consensual data mining. Stop this madness.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0349
Comment on FR Doc # 2016-22002

Submitter Information

Name: Matthew D Shapiro
Address:
  Ann Arbor, MI, 48109
Email: matthewshapiroecon@gmail.com

General Comment

See attached file(s)

Attachments

Comment on Data Synchronization for the Commission on Evidence

Comment on Data Synchronization for the Commission on Evidence-Based Policymaking

I call the Commission's attention to the Federal Economic Statistics Advisory Committee (FESAC) Statement on Data Synchronization. Improved data synchronization among the Federal economic statistics agencies would improve the quality of data available for policymaking while protecting confidentiality and privacy.

The FESAC statement is inserted below and can be found at http://www.census.gov/fesac/.

Respectfully submitted,

Matthew D. Shapiro
Ann Arbor, Michigan

FESAC STATEMENT ON DATA SYNCHRONIZATION

December 12, 2014

The Federal Economics Statistics Advisory Committee (FESAC) recommends that legal and practical barriers to synchronizing business data among the Bureau of Economic Analysis (BEA), the Bureau of Labor Statistics (BLS) and the Bureau of the Census be removed. Removing barriers to synchronizing business data will improve the measurement of key national indicators on the health of the American economy such as output, productivity, earnings, job growth and inflation as well as improve the efficiency and effectiveness of the agencies. Accordingly, measures should be taken to enable the sharing of Federal Tax Information among these statistical agencies. The legislation required to enable data synchronization should be acted on immediately. Such legislation should encompass BEA and BLS, in addition to Census, in order to promote maximal quality improvements and efficiency gains. Additionally, the statistical agencies should work under the Confidential Information Protection and Statistical Efficiency Act (CIPSEA) to achieve the full benefits of data synchronization that is permitted under current law. All improvements in data synchronization must be achieved in a manner that is consistent with maintaining the confidentiality and integrity of the data.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0350
Comment on FR Doc # 2016-22002

Submitter Information

Name: James Elliott
Address:
  Fairfield, IA, 52556
Email: james.lee.elliott1@gmail.com

General Comment

In 2009 the U.S. Sec.of Ed. said, "Hopefully, someday, we can track children from preschool to highschool, highschool to college, and college to career. Furthermore in January 2012, the U.S. Dept. of Ed., without congressional approval (imagine that), changed the Family Education and Privacy Act to allow the transmission of student's personally identifiable information to any governmental or private entity designated by the department. This info includes not only academic performance, but disciplinary history, family income, religious affiliation, health history, up to 400 data points without parental consent! This should send a chill down the spine of every parent, grandparent, guardian, church and Christian in this nation. This nation does not need the Fed. Dept. of Ed., Common Core or out of control government meddling in places never intended to be, as was written in this nation's Constitution, for this nation's prosperity and posterity.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0351
Comment on FR Doc # 2016-22002

Submitter Information

Name: United States Parents in Education

General Comment

Commission on Evidence-Based Policymaking
Bureau of the Census, Department of Commerce
Washington D.C.

December 14, 2016

Re: Docket ID: USBC-2016-003

To Whom It May Concern:

United States Parents Involved in Education (USPIE) is a nationwide grassroots organization of education advocates and activists. We are formally reaching out to you in opposition of efforts to integrate student data to make it easier to access. This letter is to provide public comment representing thousands of grassroots activists across the country regarding Student Data Privacy.

Student Personally Identifiable Information (PII) as defined in federal FERPA includes an overwhelming level "information, behavioral data, DNA samples, nicknames, bus stop times, family history, academic history, fingerprints, blood samples, religious and

political affiliation and more.

We oppose the collection of this information without specific written consent of parents. We oppose the organization of this data into easily sharable formats. And we oppose efforts to make the data easily accessible. We are asking that this policy be dropped from consideration. We are also asking that FERPA be strengthened to reduce the amount of Student PII permitted to be collected and that all data collection regarding students be authorized with written, signed permission of parents.

Please consider this from the Identity Theft Resource Center 2015 Report: "While still only a small portion of the calls to the ITRCat around ten percent of the call volume in Novemberinvolve child identity theft, 2014 was particularly alarming due to the 300% increase in inquiries and reports over the course of the year. In fact, child identity theft reports nearly doubled from January to February, and almost tripled from January to November."

Moreover, during a recent hearing sponsored by CEP, a participant asked, "how could there be more of a coordination or maybe a virtual one statistical agency where census is playing a coordinating role?"
"The CEP member's response was: "here's data with PII on it that's collected from SSA, here's data with PII on it that's collected from the IRS: here's data with PII on it that's collected from a state; versus from a statistical agency - if data with PII on it was treated the same, you know I think that would permit, you know, organizations that were collecting PII-laden data for different purposes to make those data available more easily."
The inability to adequately protect computerized data cannot be argued. This past election cycle clearly demonstrated the ease of unauthorized access to even secured data. Our children's identity is at risk of being stolen before they even earn a driver's license. Proposals to make Student PII even more easily accessible are irresponsible.

USPIE is the nation's largest collaboration of grassroots, education advocates and activists. We are committed to the goal of truly improving education for all of America's children.

Sincerely,

U.S. Parents Involved in Education
www.uspie.org

Attachments

Student PII Comment

Commission on Evidence-Based Policymaking
Bureau of the Census, Department of Commerce
Washington D.C.

December 14, 2016

Re: Docket ID: USBC-2016-003

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Moreover, during a recent hearing sponsored by CEP, a participant asked, *"how could there be more of a coordination or maybe a virtual one statistical agency where census is playing a coordinating role?"*

"The CEP member's response was: *"here's data with PII on it that's collected from SSA, here's data with PII on it that's collected from the IRS: here's data with PII on it that's collected from a state; versus from a statistical agency – if data with PII on it was treated the same, you know I think that would permit, you know, organizations that were collecting PII-laden data for different purposes to make those data available more easily."*

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U.S. Parents Involved in Education
www.uspie.org

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0352
Comment on FR Doc # 2016-22002

Submitter Information

Name: Margaret Levenstein
Address:
   Ann Arbor, 48109
Email: maggiel@umich.edu

General Comment

Please see attached file for comments.

Submission from: Institute for Social Research, University of Michigan, P.O. Box 1248, Ann Arbor, MI 48106-1248. Contact: Margaret Levenstein, Director, Inter-university Consortium for Political and Social Research and Research Professor, Institute for Social Research, MaggieL@umich.edu.

Attachments

Insitute for Social Research CEP RFC Submission December 14, 2016

Commission on Evidence-Based Policymaking Comments
Docket Number: USBC-2016-0003

Response from: Institute for Social Research, University of Michigan, P.O. Box 1248, Ann Arbor, MI 48106-1248. Contact: Margaret Levenstein, Director, Inter-university Consortium for Political and Social Research and Research Professor, Institute for Social Research, MaggieL@umich.edu.

Introduction

The Commission on Evidence-Based Policymaking is examining strategies to expand access to and the use of government data for the purposes of building evidence-based evaluation of program and policy outcomes while concurrently protecting the privacy and confidentiality of the citizens and organizations studied.

The University of Michigan's Institute for Social Research (ISR) is pleased to present the comments below for consideration as the Commission deliberates these strategies. There are several general principles that we believe should guide the Commission as it examines opportunities to build and evaluate evidence-based programs and policies with administrative and survey data. These principles are woven throughout our comments to the Commission's questions below and are summarized as follows:

- Confidentiality of individual data and the independence of the federal statistical system must remain paramount. Participation in our federal data programs, whether they collect survey or administrative data, is premised on the promise that individual data will remain confidential and will be used for statistical purposes only. It is never to be used for enforcement purposes or for the benefit of particular commercial or political interests. Confidence in the estimates produced by our federal statistical system requires adherence to these principles at all times. As articulated in the Office of Management and Budget's Statistical Policy Directive No. 1 (2014), it is critical to "Protect the trust of information providers by ensuring the confidentiality and exclusive statistical use of their responses. Maintaining and enhancing the public's trust in a Federal statistical agency's or recognized statistical unit's ability to protect the integrity of the information provided under a pledge of confidentiality is essential for the completeness and accuracy of statistical information as well as the efficiency and burden of its production." This is just as true when administrative data is re-purposed for statistics. Undermining this trust undermines statistical measurement as well as the effectiveness of the programs upon which the statistics are based.
- Two important steps to uphold these principles and assure the independence and reliability of the estimates produced by our federal statistical system include the following:
    a. Data originally generated outside the federal system, either from state and local, commercial, non-profit, social media, web-based, or other programs, should be aggregated outside the federal system. These data can be cleaned and documented, and secure, confidentiality-protecting crosswalks to PII can be

      created. Data can then be transferred to the federal statistical system for matching to federal data resources. This will preserve respondent and data provider confidentiality and increase confidence in the security of the system. It also provides a mechanism for state and local civil servants and third-party (e.g., academic researchers) to access the non-federal data in a secure environment without burdening the federal research data system and its supporting security clearance mechanisms. This is the model that has been adopted by the Institute for Research on Innovation in Science (IRIS) in its collaboration with the Census Bureau's Innovation Measurement Initiative. This model leverages the expertise of those outside the federal statistical system to improve, harmonize, and document the non-federal data. This kind of expertise is often lost or reduced when data are moved exclusively inside the federal statistical system.

    b.   Data generated by federal agencies and programs will almost surely be legally required to stay within the federal firewall. These data should be made available systematically (promptly, with transparent access procedures, and where there is no or limited documentation, with a mechanism for researchers to contribute to the data and documentation). This will harness the energies and expertise of researchers to improve the data resources of the federal statistical system as well as state-of-the-art analyses of policies in order to assure that the inference drawn from evidence is scientifically sound. This also assures that there is competition in program analysis, so that multiple approaches can contribute to the analysis and program evaluation. The Federal Statistical Research Data Centers are an important mechanism for providing researcher access to these data, but, given the significant ongoing hurdles to their use, they should not be the exclusive mode for researcher access.

Overarching Questions

1. Are there successful frameworks, policies, practices, and methods to overcome challenges related to evidence-building from state, local, and/or international governments the Commission should consider when developing findings and recommendations regarding Federal evidence-based policymaking? If so, please describe.

Yes, there are several. For example, the Institute for Research on Innovation and Science (IRIS), a collaboration of approximately 50 universities based at the Institute for Social Research (ISR) at the University of Michigan, provides an excellent model in which universities (mostly state, but also private) have voluntarily chosen to share confidential, proprietary data, including individual identifiers, with a federal statistical agency for the production of new estimates of the impact of national investments in research and development. IRIS has developed the capacity to ingest, harmonize, and de-identify transaction-level data from its member institutions. It uses these data to produce reports back to its members, restricted datasets available to the research community, and datasets that it transmits to the U.S. Census Bureau for linkage to Census data assets. The Census Bureau produces additional estimates and reports from these linked datasets, and makes the linked data available to qualified researchers with approved projects in

the network of Federal Statistical Research Data Centers (FSRDCs). This model has been able to achieve the participation of a large number of institutions, systematic access for the research community, and a more valuable research dataset than was the case for an earlier initiative strictly within the federal government. These data provide the basis for an evidence-based evaluation of a wide range of federal and private programs investing in science and academic R&D. IRIS's model leverages the interest and abilities of the research community to analyze these data as well as leveraging the existing data resources of Census Bureau and the computing resources of the FSRDCs.

In another initiative, in this case between the Institute for Employment Research (IAB) of the German Federal Employment Agency (BA) and the University of Michigan's ISR, now expanded to five other U.S. universities and locations in the UK and on the Continent, hundreds of researchers have contributed to the analysis of German labor market reforms through their access to restricted, linked survey and administrative data.   These initiatives demonstrate both the feasibility and the value of academic-government collaborations in overcoming the challenges to creating appropriate data infrastructure and harnessing scientific expertise to analyze those data for evidence-based policy evaluation.

State and local governments produce large amounts of administrative data on programs that they implement, whether funded locally or by the federal government. State and local civil servants have important expertise and knowledge about the operations of these programs and, therefore, the meaning of the administrative data generated by them. They often lack the data or statistical scientific expertise or computing environments in which to analyze or link these resources. Partnerships between state and local governments, federal governments, and academic institutions can provide the relevant training while developing data resources of value to all parties for evidence-based program evaluation.

2. Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?

We recommend two complementary approaches to providing security and assuring privacy. One is to take steps to assure that the data are safe. This can be achieved through traditional anonymization methods (aggregation, suppression, swapping, and noise infusion), data encryption, and the creation of fully or partially synthetic data. The other is to take steps to to assure that the researcher who analyzes the data is safe and is working in a safe computing environment. This is achieved through researcher training and credentialing, scientific peer review and pre-registration of research proposals, and the use of secure computing environments, such as virtual or physical research data enclaves. These two approaches are complementary. Many tasks associated with the work of turning administrative datasets into useful analytical datasets, including data cleaning, the production of metadata, and dataset linkages, can only be accomplished with access to identifiable data. This then requires secure computing *and* a system for training and vetting researchers. The UK's Administrative Data Research Service has made steps in the direction of researcher training and credentialing. The European Union's Data Without Boundaries project envisioned a researcher "passport" to

facilitate credentialed access across the European statistical agencies. The Sloan Foundation has recently supported the Inter-university Consortium for Social and Political Research (ICPSR) to build on these earlier projects to establish durable researcher credentials for access to confidential data.

Data Infrastructure and Access

3. Based on identified best practices and existing examples, how should existing government data infrastructure be modified to best facilitate use of and access to administrative and survey data?

Exploiting the potential power of administrative and survey data for evidence-based policy and program evaluation requires that both government and non-government analysts are able to discover appropriate data resources and gain access necessary to analyze these data effectively. To address these needs, an infrastructure characterized by rich metadata about administrative and survey data sources, a secure platform for researchers to analyze datasets held in other locations, and a standardized and broadly accepted system of researcher credentialing must be developed. The existing network of Federal Statistical Research Data Centers provides an important mechanism for non-governmental researchers to contribute their expertise to the challenges faced by the federal statistical system and to the evaluation of programs.

- The adoption of standardized researcher credentialing, accepted by multiple federal statistical agencies, similar agencies in other countries (such as the German IAB and UK Data), and non-governmental providers of confidential data to the research community (ISR, NORC, RTI) can reduce barriers to accessing data by enabling qualified researchers to analyze data through a modality that is appropriate to their level of data-security training and experience. It also assures that access is obtained for legitimate research purposes on an equitable basis.
- In order to make data useful, and the research arising from it replicable, investments should be made in data documentation via well-defined metadata fields, and infrastructure should be built that enable researchers to locate and analyze datasets held in multiple, distinct, secure locations. Community curation, provided by researchers who are invested in understanding the data and enabled with appropriate software, can assist in building this documentation.

4. What data-sharing infrastructure should be used to facilitate data merging, linking, and access for research, evaluation, and analysis purposes?

The characteristics of a data-sharing infrastructure designed to increase the availability and use of government data for evidenced-based program evaluation include:

- Robust search and browse capabilities that leverage standardized metadata, permitting researchers to discover data and learn about data in depth

- Capacity to facilitate crowdsourcing (active curation) and improvement of metadata to capture and leverage newly acquired knowledge about the data
- Capacity to recognize varying levels of credentials assigned to a researcher ID
- Functionality that enables researchers to analyze datasets held in multiple, distinct, secure locations, that is, a computing backbone that can support secure, multi-party computing.

5. What challenges currently exist in linking state and local data to federal data? Are there successful instances where these challenges have been addressed?

Two white papers prepared for the Commission on Evidence-Based Policymaking by the Office of Management and Budget, "Using Administrative and Survey Data to Build Evidence" and "Barriers to Using Administrative Data for Evidence Building," explicitly point to the key challenges. These include statutory prohibitions that hinder access to the data; policy and legal interpretations, which can vary across agencies and federal, state, and local governments; and resource and capacity constraints, specifically the lack of appropriate and reliable infrastructure to address data sharing and access, management and curation of data, and security and privacy concerns.

The Longitudinal Employer-Household Dynamics/Local Employment Dynamics data program is our best example of such a collaboration. LEHD highlights both the enormous potential and the enormous challenges to creating and making use of linked state and federal data. This collaboration has made possible very important new data assets which have revolutionized our understanding of local and internal labor markets, job creation and destruction, and job mobility for workers in different industries, cohorts, and demographic groups. These valuable data remain underutilized because of limitations to access. Providing resources to strengthen state and local government statistical capacity would allow those agencies and their civil servants to participate more effectively in research using these data. Increased capacity within state and local governments would allow these agencies and civil servants to benefit from collaboration with external researchers and reduce their incentives to impede research.

6. Should a single or multiple clearinghouse(s) for administrative and survey data be established to improve evidence-based policymaking? What benefits or limitations are likely to be encountered in either approach?

There are benefits and limitations to both the single- and multiple-clearinghouse approaches. Overall we endorse a principle of union catalogs, so that data can be discovered and compared.

A single clearinghouse would facilitate the process of finding and gaining access to the data and potentially linking multiple datasets. A clearinghouse would also act as a single point of entry for an analyst searching for appropriate data with which to address his/her question, and one might expect that a single catalog would have the benefit of consistent metadata to assist the researcher in evaluating the options and identifying the most useful source of data. Having a single clearinghouse to more efficient linking of datasets, for example if the clearinghouse

functioned as a trusted third party and provided de-identified, linked data to researchers. A single clearinghouse, using appropriate software to track dataset versions would also increase reproducibility of analyses by make it easier for researchers and policymakers to identify a specific instance of a dataset. Given that administrative datasets are updated regularly as new data are generated versioning of data is particularly important for rigorous and reproducible analysis. The most important benefit to a single clearinghouse is that it would reduce the bureaucratic hurdles to analyses that required to access multiple datasets; on the other hand, these hurdles creates checks and balances and privacy protection that can be undermined by centralization.

Multiple clearinghouses, however, would allow for specialization and expertise around particular data sources and/or types (which lends itself to strong user support as well) and the flexibility to respond more efficiently to changes in formats or uses of data in a particular domain. One of the challenges to using administrative data for research and analysis is the lack of accompanying documentation about the fields in the dataset. A series of specialized clearinghouses could begin to address this because domain-speficic staff expertise could, over time, be used to create such documentation -- for example, noting when the underlying meaning of a particular field has changed or even simply pointing out that distributions on key variables changed at a specific point in time so that the researcher could do the detective work necessary to figure out why. Having multiple clearinghouses also spreads and develops the capacity necessary in both person-power (tagging, data checking, user support) and hardware/software for storing and disseminating the data across multiple organizations. This decentralization provides robustness to the infrastructure while increasing privacy protections.

An efficient and privacy-protecting solution would be to have integrated data catalogs and multiple clearinghouses, but secure, multi-party computing across clearinghouses and common standards to gain access to data, including:
- common researcher credentials
- peer review and pre-registration of research project proposals
- data use agreements
- required metadata fields

7. What data should be included in a potential U.S. government data clearinghouse(s)? What are the current legal or administrative barriers to including such data in a clearinghouse or linking the data?

8. What factors or strategies should the Commission consider for how a clearinghouse(s) could be self-funded? What successful examples exist for self-financing related to similar purposes?

High quality data requires investment in curation. High quality analyses require investment in training researchers and civil servants and providing them with up-to-date computing facilities. Democracy requires that the data be well-protected. All of these require resources that have to be provided by someone.

One model for self-sustaining data access is the consortium model. Most relevant to the types of data discussed here is the Institute for Research on Innovation and Science (IRIS), a project based at the University of Michigan's Institute for Social Research. Started with funding from external sources, IRIS's model was to become self-funded by charging institutions (colleges and universities) an annual membership fee. This fee provides the member institution with campus-level reports based on their data, a seat at the table to help prioritize and design future IRIS products and initiatives, and access to de-identified and aggregate IRIS data for researchers on their campus. One benefit to universities is that, although they are required to deposit data about their campuses with IRIS annually, the IRIS staff has automated the ability to produce charts and reports based upon those data (possible because the same information fields are collected from each institution). An organization or government agency that is required to share data and/or provide reports based on those data can find that it is in their interest to pay those with the skills and resources to properly support the data sharing efforts to carry out those tasks rather than reinventing the wheel and building that capacity within each agency. The data center providing a service such as creating reports or demonstrating use of the data within the research community is seen by the data producer as an added benefit. Similarly, the Inter-university Consortium for Political and Social Research (ICPSR) began as a consortium of 22 institutions in 1962 and continues the model with over 760 member institutions today. These institutions pay an annual membership fee in exchange for access to data curated (and tools created) using member funding as well as reduced tuition for students enrolling in the ICPSR Summer Program in Quantitative Methods of Social Research.

It is important to remember, however, that there is no free lunch; if we want better data and better analysis than currently exists, resources will have to be obtained to support this. The value of this research may well provide the basis for self-financing, but it is more likely that such research creates positive externalities without the ability to generate much revenue to support it.

9. What specific administrative or legal barriers currently exist for accessing survey and administrative data?

10. How should the Commission define "qualified researchers and institutions?" To what extent should administrative and survey data held by government agencies be made available to "qualified researchers and institutions?"

It is critical that administrative and survey data held by government agencies be made available to qualified researchers and institutions for scientific research and evidence-based analysis. Such access provides the policy community with much greater resources for informing policy decisions than if we rely exclusively on government analysis. It also increases the likelihood that there is diversity in the analytical approaches brought to bear on important policy questions.

"Qualified researchers and institutions" should be established through external scientific peer review of proposals and a system of researcher credentialing that creates an incentive for researchers to be good data stewards. Because of the current lack of consistency across agencies in defining these terms, ICPSR is undertaking a project to research, propose, and test

recommendations for researcher credentialing, the result of which will be a tiered set of characteristics that describe "qualified researchers and institutions." These characteristics will stem from those currently employed/accepted by providers of restricted data, in so far as those requirements are related to protecting against disclosure risk (i.e., not requirements put into place to add bureaucracy or additional "hoops" that must be jumped for data access). We anticipate using factors such as whether one has completed requisite training in ethical data use, is employed at an accredited academic institution, has secured federal funding, and proposes a project that is scientifically sound and that requires access to the data in question.

The ability to disseminate data using a variety of modes (providing metadata only, synthetic data, use restricted to a physical or virtual enclave, or encrypted download) also allows for flexibility in determining access. That is, if a researcher does not have accepted credentials, or is not affiliated with an institution with appropriate technical and legal protections for data, a researcher might still be allowed access to de-identified data. More sensitive data can be restricted to access in a virtual or physical data enclave. In other words, the same data may be made available to different researchers under different access modalities based on the characteristics of the researcher and the sponsoring institution.

11. How might integration of administrative and survey data in a clearinghouse affect the risk of unintentional or unauthorized access or release of personally-identifiable information, confidential business information, or other identifiable records? How can identifiable information be best protected to ensure the privacy and confidentiality of individual or business data in a clearinghouse?

The integration (linking) of administrative and/or survey data in a clearinghouse without question increases the risk of disclosure of entities within the data; however, the federal statistical community and the research data community have a long history and reputation for protecting confidentiality. This reputation must be maintained and protected by adhering to the Office of Management and Budget's Directive 1 (2014). Policies to maintain these protections and the reputation of and confidence in the statistical agencies of the United States include:

- Providing access only to credentialed analysts with well-articulated research plans and objectives
- Provision by the clearinghouse of disclosure review of output, notes and other materials that are to be taken out of the clearinghouse (secure environment) to prevent unintended disclosure of subjects within the dataset(s)
- Developing and implementing privacy preserving analytical techniques as well as disclosure avoidance techniques such as creating synthetic populations that preserves statistical information

12. If a clearinghouse were created, what types of restrictions should be placed on the uses of data in the clearinghouse by "qualified researchers and institutions?"

Clearinghouses can and should require researchers or analysts to submit a detailed proposal of the project for which the data are to be used, specifically addressing why the dataset in question is necessary for addressing the research question. Once these are vetted, by scientific peer review, clearinghouse staff and perhaps an external review board representing the data producer and the study population, a conclusion can be drawn on whether the benefits of the research project outweigh potential risks. Other restrictions should be consistent with the factors listed above -- explicitly agreeing to use the data in an ethical manner (and potentially demonstrating completion of training in doing so), restrictions on the computing environment in which the data can be analyzed, agreeing to terms of use, and the like.

13. What technological solutions from government or the private sector are relevant for facilitating data sharing and management?

There are a number of private and governmental organizations that offer technological options for data sharing and management. Colectica, a Minneapolis-based firm, is an example of a research and development firm specializing in data management, integration services, and Internet technologies for government, academic, and commercial computing; it offers a range of highly specific products and services useful for supporting data sharing and management. They offer tools for working with metadata using a variety of documenting standards (e.g., the Data Documentation Initiative, DDI,). Colectica also has a portal that offers search, browse, visualization, and data management capabilities.

Other projects exist that could offer either the technology or the functionality considerations that would be helpful. One such project is the Sustainable Environment/Actionable Data (SEAD) project, funded by the National Science Foundation and based at the University of Michigan. SEAD provides a collaborative platform for researchers to curate their data as they undertake analyses, so that the documentation is created and captured and can be harvested when the data are shared (i.e., in a clearinghouse). A number of organizations, such as ICPSR, NORC, and the Michigan Center for the Demography of Aging, use technology to create virtual spaces in which researchers can analyze data that have significant disclosure issues. Generally, these spaces require the researcher to log in to a server housed at the data provider, conduct their analyses, and have output vetted before it is released to them. These virtual data enclaves often disable connections to the internet, print functionality, email, and other programs/features that might compromise data security. Lastly, software (e.g., Fedora) exists for creating and managing digital repositories and could be employed by a clearinghouse.

14. What incentives may best facilitate interagency sharing of information to improve programmatic effectiveness and enhance data accuracy and comprehensiveness?

Resources to train civil servants in state, local, and federal agencies to evaluate their own data will also increase their capacity to learn from and absorb the analyses done by others. The implementation of *multiple* randomized control trials could also reduce the inclination to limit data sharing, as analyses can examine the question of which policies or interventions should be supported at scale (not simply whether an individual policy or program should be continued).

Building continuous evaluation and improvement, based on progress toward measurable objectives for the relevant population, into policy design provides programs with incentives to collect and analyze data in order to identify potential improvements.

We should also work to develop a culture that highlights the intrinsic benefit that most civil servants, researchers, and the general population receive from having better answer questions about program effectiveness and other social issues. Researchers and civil servants will then be more likely to suggest improvements to data collection (methods and/or content) that would provide more effective analytic data to use in program evaluation. Researchers who are analyzing data are also likely to catch anomalies or potential inaccuracies that might be missed without researcher engagement. Having multiple researchers with multiple perspectives working with the same data will support models that might be more robust than if a single party were solely responsible for producing the evaluations. The research community's embrace of data transparency and replicability may provide reinforcement to governmental agencies to adhere to similar principles. Sharing data among agencies and with researchers increases the return on investments in data creation. It is more efficient use of government resources. It is rarely the case that a single researcher or organization can study everything that can be examined using a given data source. Differences in disciplinary perspectives mean that data collected for one purpose might be seen by another investigator as having value for his/her project that is completely different. Our statistical agencies employ dedicated civil servants who value improvements in the quality of measurement that they produce for our country. Recognition and respect for these values and these individuals will enable them to be more effective and take the steps necessary to continuously improve our data infrastructure.

Data Use in Program Design, Management, Research, Evaluation, and Analysis

15. What barriers currently exist for using survey and administrative data to support program management and/or evaluation activities?

There are currently significant barriers in accessing and using such data, including challenges in discovering the existence and location of appropriate data, uncertainty about legal infrastructure and processes for providing access to data, lack of documentation of file contents or data provenance. There are also limited resources for analyzing data (e.g., appropriate training for government employees and non-governmental researchers, appropriate computing infrastructure).

16. How can data, statistics, results of research, and findings from evaluation, be best used to improve policies and programs?

Simply using such information is the first step. Organizations may collect data from program participants but not use it in evaluating the effectiveness of the program, may create summary statistics based on the data but not move further into more sophisticated statistical models, and/or may not be aware of existing research that could inform program/policy decisions. The ability to link data sources provides an opportunity to put data about program participation into

context in ways that have not been possible before. For example, having information about students' performance for a given school by itself is helpful, but having the ability to link the information to such things as parental earning records and teacher characteristics allows an educational policy analyst to determine which shifts in student performance are likely a result of new policies implemented at the school, characteristics of the school or teachers themselves, or other issues related to outside influences such as food insecurity. Comparing data across similar contexts or programs is helpful in that the similarities and differences between the contexts create quasi-experimental designs, allowing researchers to identify the parts of the program that are most effective and those where improvement might be needed. Making data available to researchers also provides an avenue for dialogue between academics and policymakers that otherwise might not exist.

17. To what extent can or should program and policy evaluation be addressed in program designs?

Program and policy evaluation should be included in program design so that evaluation is based on evidence that is available and analyzable by multiple, even competing, research teams, held to standards of reproducibility so that all parties can learn from evidence as it accrues in the process of program implementation.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0353
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

Dear Chairperson Abraham, Co-Chair Hastings, and Commissioners:

On behalf of the Future of Privacy Forum (FPF), thank you for the opportunity to provide comments in response to the Commission on Evidence-Based Policymaking's request for comments. FPF is a non-profit organization that serves as a catalyst for privacy leadership and scholarship, advancing principled data practices in support of emerging technologies.

The attached comments address question two as it relates to federal education data in the request for comments in the Federal Register: "Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?"

Thank you for your time. Please let us know if we can answer any questions.

Amelia Vance

Policy Counsel, Education
Future of Privacy Forum

Attachments

FPF Comments to Evidence-Based Policymaking Commission

Comments from

THE FUTURE OF PRIVACY FORUM

to

U.S. Department of Commerce, Bureau of the Census
Commission on Evidence-Based Policymaking

Docket No. USBC-2016-0003

Request for Comment Regarding the "Commission on Evidence-Based Policymaking"

Amelia Vance, Policy Counsel, Education

John Verdi, Vice President of Policy

THE FUTURE OF PRIVACY FORUM   December 14, 2016
1400 I St. NW Ste. 450
Washington, DC 20005

www.fpf.org

Dear Chairperson Abraham, Co-Chair Hastings, and Commissioners:

On behalf of the Future of Privacy Forum (FPF), thank you for the opportunity to provide comments in response to the Commission on Evidence-Based Policymaking's request for comments. FPF is a non-profit organization that serves as a catalyst for privacy leadership and scholarship, advancing principled data practices in support of emerging technologies.

The information below addresses question two as it relates to federal education data in the request for comments in the Federal Register: "Based on identified best practices and existing examples, what factors should be considered in reasonably ensuring the security and privacy of administrative and survey data?"

FPF has been working on student privacy for almost three years. In that time, among other accomplishments, we jointly created the Student Privacy Pledge with the Software and Information Industry Association (a voluntary and legally binding promise by more than 300 ed tech companies to date regarding the handling of student data that was endorsed by President Obama); have read or provided comments on the more than 400 student privacy bills introduced in 49 states since 2014 and the eight federal bills introduced in 2015; written numerous reports on student privacy, including a guide for deidentifying student information under FERPA; and created FERPA|Sherpa, a website compiling education privacy resources and tools with sections aimed at parents, schools, service providers, and policymakers. In particular, over the past year we have provided higher education privacy guidance and input to the PostSecondary Data Collaborative, a group working on, among other priorities, efforts to improve the data available to researchers seeking to better understand how to improve higher education.

As many other organizations have addressed in their comments, current federal higher education administrative data is generally not being used efficiently or effectively. Despite the fact that the federal government collects student-level data on demographics, income, assets, and educational attainment as well as federal aid amounts and history through the FSA National Student Loan Data System and Central Processing System, students are not given the critical information they need to know about how students with similar characteristics perform at certain institutions and the expected employment value relative to the educational cost. In addition to the FSA data systems, the National Center for Education Statistics collects data on an institutional level with information about graduation rates and pricing, but this information does not include transfer and part-time students, who comprise a significant percentage of the student population. In addition to helping to use currently collected information more efficiently, a more comprehensive student-level system would enable a range of additional benefits for students, institutions, and policymakers.[1]

Of course, any such database or additional collection of data would have to be paired with state-of-the-art security and address many of the risks and concerns that have been raised in previous debates about SURDS in 2008 and in other comments filed before the Commission. Below, we discuss a few of the primary concerns.

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[1] We highly recommend *Building a Student-Level Data System*, a recent report by Ben Miller from the Center for American Progress, for a highly detailed overview of the benefits of a Student Unit Record Data System.

Concern: The Federal Government Should Not Collect Such Sensitive Data About Students On An Individual Level

Many of the comments to the Commission expressed that the federal government should not collect sensitive preK-12 student data such as student disciplinary records, disabilities, social-emotional information, and immigration status. FPF agrees that collecting such sensitive and potentially prejudicial information at the federal level is inadvisable and would raise major privacy concerns. The data that should be included in a student-level system should be primarily focused on postsecondary students. The data sets that would be useful and appropriate for a more effectively linked system of student records are presented below, as described in a recent paper published by IHEP.[2]

The privacy "best practice" of data minimization requires that a system only collect data that is needed to address pre-determined goals or answer specific questions. The Commission could recommend that any new federal student-level data system expressly define what data elements may be collected, and propose including a governance process, such as regulatory rulemaking with a public comment period, before new elements are added. In order to assuage fears that this database would include pre-K-12 sensitive data or even that the system would include such data on postsecondary students, the Commission could also recommend that there be a statutory provision that enumerates certain data that should never be shared with the federal student-level data system and/or limits what data what can be collected on pre-K-12 students.

Concern: A New Federal Student-Level System Would Create New Security Risks For Breaches or Malicious Attacks

Breaches or unintentional disclosures of data are always a concern, as the publicized breaches of sensitive information both inside government (such as the OPM breach) or outside government (such as the Target or Sony breaches) have shown. However, there are many ways to manage and lower the risk. While our comments below are focused on the privacy guidance necessary to avoid inadvertent data loss, we also assume that others will ensure the appropriate security safeguards are in place, including both the necessary technical standards and accompanying policy protocols.

First, as discussed above, limitation of what data is collected is essential: data that is not collected cannot be breached. Data should only be collected when there is a direct need for that data. In addition, each decision about whether to collect a data element should weigh the importance of collecting that data element against the damage a breach of that data element could cause. For example, many state educational systems have stopped collecting social security numbers because of their low value to data use and research, but relatively higher value to hackers or other bad actors.

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[2] Ben Miller, Building a Student-Level Data System, Envisioning the National PostSecondary Data Infrastructure in the 21st Century, May 2016, page 17, http://www.ihep.org/sites/default/files/uploads/postsecdata/docs/resources/building_a_student-level_data_system.pdf.

Second, limiting who has access to the data, ensuring that those who have access to the data are trained in how to protect it, and that they are incentivized to keep it safe are practices that can significantly curtail the likelihood of unintended data disclosures. A table from the recent IHEP paper, shown below, suggests a role-based access framework that would help protect the privacy and security of that information.[3]

User type	Type of student data visible	Confidentiality (type of access)	Integrity (extent to which they can edit data)	Availability
Institutional representative working directly with student data	Personally identifiable	Student-level data of people who are attending or have attended that school	Edit data related to the time that student spent at that school (e.g. cannot change completion status at another college)	Ability to access allowable data on demand with minimal to no slowdowns
State representative working directly with student data	Personally identifiable	Student-level data of people who are or have been enrolled in public colleges in that state	Edit data related to the time that student spent at that school in their state	
Federal government engaged in active management of aid programs	Personally identifiable	Student-level data of people who are or have been enrolled in college	Data related to information related to the federal governments' interaction with that student (e.g., federal aid amounts)	
Other federal agencies uploading data	Personally identifiable	Information only needed for purposes of matching data	Data they are matching into the system.	Ability to access data on students who match their records
Other federal users	Treated like researcher or public, depending on use	Treated like researcher or public, depending on use	None	Public tool for aggregated analysis
Researcher	Depends on access protocols, at least de-identified	Student-level data of a representative sample of everyone in college	None	
Public/Policymakers	Anonymized or aggregated	Aggregated student data of people who have been enrolled in a given college or program	None	
Students	Personally identifiable	Their own record	Edit data stemming from student reporting, such as parents' marital status	

The Commission could recommend that there be strict privacy and security protocols for those with access to the student-level data, whether government employees, or researchers. One possible model is that of the Internal Revenue Service (IRS), which requires, among other protections, that researchers submit formal proposals; physically go to IRS offices to access any data; and obtain approval before publishing reports discussing the data.

Concern: Creating a Student-Level System for Valid Educational Uses Could Allow for Future Negative Uses Not Initially Intended

One of the most prevalent concerns in other comments addresses the possibility of this data being used for purposes not initially intended, such as for homeland security or law enforcement. This is a valid concern; once information is gathered, if adequate legal and procedural safeguards are not put in place, that information, such as whether a student is in default on their loans or which credits a student attempted but did not receive, could be "repurposed" inappropriately. Therefore, it is essential to directly limit the purposes for which the information could be used and who can access the data. As mentioned above, best practices for data privacy include use limitation and role-based access. The Commission could strongly recommend that any federal collection of education data have specific use limitations attached in law or regulation that detail how a student's personal information may be used, as well as clear restrictions on what is not

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[3] Miller, page 20.

allowed, particularly focusing on limits for any data use that extends beyond clearly specified educational purposes. In addition, the Commission could recommend that information that is made available to external researchers be reliably de-identified.

As discussed above, any proposals to more comprehensively link higher ed student data should include limitations on the type of data that could be collected to make it less likely that it could be mis-used. If the system does not include, for example, sensitive data such as disciplinary or immigration information, law enforcement would likely not be incentivized to seek access to the student-level system.

It is also noteworthy that much of the information that would be in a student-level data systems is currently collected and held by the federal government, and the restrictions on sharing that data have been sufficient to prevent inappropriate repurposing of the information. If there are data elements currently collected that may be inappropriate to continue collecting or to collect in the first place, proposals can be crafted to address those specific concerns. However, the only effect of this data not being easily linked for access by researchers is that beneficial uses of the data on behalf of students is hampered. It would be much better if the existing data the government holds was being used to more proactively help students.

These suggestions only scratch the surface on the potential privacy and security protections that could be suggested by the Commission in their recommendations. FPF staff would welcome the opportunity to further discuss these issues and provide additional details or action steps on any of these recommendations.

Sincerely,

Amelia Vance	John Verdi
Policy Counsel, Education	Vice President of Policy
Future of Privacy Forum	Future of Privacy Forum

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0354
Comment on FR Doc # 2016-22002

Submitter Information

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General Comment

See attached comments submitted by the Center for Data Innovation, a non-profit, non-partisan think tank studying the intersection of data, technology, and public policy.

Attachments

2016-evidence-based-policymaking

December 14, 2016

The Commission on Evidence-Based Policymaking
Docket ID USBC-2016-000

Re: Comments to the Commission on Evidence-Based Policymaking

To Whom It May Concern:

On behalf of the Center for Data Innovation (datainnovation.org), we are pleased to submit these comments in response to a request for comments from the Commission on Evidence-Based Policymaking, a bipartisan commission created by Congress to examine how to increase the availability and use of government data to build evidence and inform program design while protecting the confidentiality of this data.[1]

The Center for Data Innovation is the leading think tank studying the intersection of data, technology, and public policy. With staff in Washington, DC, and Brussels, the Center formulates and promotes pragmatic public policies designed to maximize the benefits of data-driven innovation in the public and private sectors. It educates policymakers and the public about the opportunities and challenges associated with data, as well as technology trends such as predictive analytics, open data, cloud computing, and the Internet of Things. The Center is a nonprofit, nonpartisan research institute affiliated with the Information Technology and Innovation Foundation.

Over the past several years, the federal government has made substantial progress on making its data freely available to the public in open, usable formats, and this data has proven to be an invaluable resource for informed decision-making. Policymakers should expand on these efforts, as well as address the obstacles that remain to effective data sharing and use.

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[1] U.S. Census Bureau, "Request for Comments for the Commission on Evidence-Based Policymaking" September 14, 2016, https://www.regulations.gov/document?D=USBC-2016-0003-0001.

Please find our responses to the relevant questions in the attached document.

Sincerely,

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DATA INFRASTRUCTURE AND ACCESS

BASED ON IDENTIFIED BEST PRACTICES AND EXISTING EXAMPLES, HOW SHOULD EXISTING GOVERNMENT DATA INFRASTRUCTURE BE MODIFIED TO BEST FACILITATE USE OF AND ACCESS TO ADMINISTRATIVE AND SURVEY DATA?

Government data should be open and machine-readable by default, in accordance with official administration policy issued in May 2013.[2] This means that, unless otherwise legally prohibited, government data should use nonproprietary, machine-readable formats, and be licensed to maximize reuse, meaning the data is free for anyone to access, modify, and use for any purpose. Though agencies have made substantial progress towards publishing data as open and machine-readable by default, the requirements to do so are by executive order, rather than an act of Congress, meaning that they could be subject to change under a new presidential administration.[3] Regardless of whether these rules remain on the books, federal agencies should recognize the importance of open data to mission delivery and evidence-based decision-making and continue to treat their data as open by default indefinitely.

Moreover, all federal agencies should produce and publish enterprise data inventories. Enterprise data inventories provide a list of all data assets managed by an agency—both public and non-public. By creating enterprise data inventories, federal agencies, policymakers, and other stakeholders are better able to discover important government data assets.

WHAT DATA-SHARING INFRASTRUCTURE SHOULD BE USED TO FACILITATE DATA MERGING, LINKING, AND ACCESS FOR RESEARCH, EVALUATION, AND ANALYSIS PURPOSES?

The federal open data portal Data.gov is a widely-used and effective tool for making open data from all levels of government easily accessible to members of the public and private sectors alike. Federal agencies should continue to publish their data on Data.gov, ensuring that they publish their data in open and machine-readable formats.

In November 2016, the Department of Commerce partnered with public benefit corporation data.world to use data.world's data science collaboration platform to increase the accessibility,

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[2] Sylvia M. Burwell et al., "M-13-13," Office of Management and Budget, May 9, 2013, http://www.whitehouse.gov/sites/default/files/omb/memoranda/2013/m-13-13.pdf.
[3] Joshua New, "Will Obama be the Last Open Data President?" Center for Data Innovation, November 11, 2014, https://www.datainnovation.org/2014/11/will-obama-be-the-last-open-data-president/.

linkability, and usability of its data.[4] Federal agencies should pursue innovative partnerships such as these that can increase the utility of government data.

WHAT CHALLENGES CURRENTLY EXIST IN LINKING STATE AND LOCAL DATA TO FEDERAL DATA? ARE THERE SUCCESSFUL INSTANCES WHERE THESE CHALLENGES HAVE BEEN ADDRESSED?

Government data published in proprietary formats, data with restrictive licenses, non-machine readable data, data that is not made available free of charge, and data that governments fail to publish are all major challenges for linking data between different levels of government. Unless all levels of government are publishing open data, it can be very difficult for researchers, for example, to know what data is even available to them. And unless data is made available in a nonproprietary and machine-readable format and licensed to maximize reuse, these researchers would be technically and legally unable to link these datasets. In addition, many datasets are not available via application programming interfaces, or APIs. APIs allow developers to access datasets programmatically and expose datasets to new uses, especially on websites or mobile apps.

As noted previously, another important challenge is that most federal agencies have failed to publish enterprise data inventories—a catalog of all of their datasets, both public and nonpublic.[5] Without publicly available enterprise data inventories, members of the public and private sector alike can be unable to locate relevant datasets or determine if a certain dataset even exists.

SHOULD A SINGLE OR MULTIPLE CLEARINGHOUSE(S) FOR ADMINISTRATIVE AND SURVEY DATA BE ESTABLISHED TO IMPROVE EVIDENCE-BASED POLICYMAKING? WHAT BENEFITS OR LIMITATIONS ARE LIKELY TO BE ENCOUNTERED IN EITHER APPROACH?

Data.gov is already a widely-used tool for discovering public administrative and survey data, so there is no need to establish similar tools for public government data. Creating multiple hubs for government data would raise costs for federal agencies, if they must submit data to multiple sites, and for users, if they must search multiple sites. Data.gov could also serve as an index for non-public datasets, but even if they were indexed, these datasets would still only be accessible

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[4] Justin Antonipillai and Brett Hurt, "data.world to Bring Valuable Commerce Datasets to 'Social Network for Data People,'" U.S. Department of Commerce, November 8, 2016, http://www.esa.doc.gov/under-secretary-blog/dataworld-bring-valuable-commerce-datasets-social-network-data-people.

[5] Joshua New, "Congress is Stepping Up to Protect Open Data," center for Data Innovation, April 19, 2014, https://www.datainnovation.org/2016/04/congress-is-stepping-up-to-protect-open-data/.

via the security protocols in place to protect the data. Data.gov is not a repository for datasets, and creating a central repository for government data would have limited value because of the costs involved of transferring data from multiple systems. A better approach would be to focus on improving online identification and authentication technologies, so that federal agencies can more easily and securely make non-public datasets available to authorized users. So rather than creating a clearinghouse that is a repository of non-public government data, federal agencies should create a clearinghouse that is an index of available non-public data sources.

WHAT FACTORS OR STRATEGIES SHOULD THE COMMISSION CONSIDER FOR HOW A CLEARINGHOUSE(S) COULD BE SELF-FUNDED? WHAT SUCCESSFUL EXAMPLES EXIST FOR SELF-FINANCING RELATED TO SIMILAR PURPOSES?

In general, the government should refrain from considering its data as an opportunity to generate revenue. Since the government collects data at taxpayers' expense, taxpayers should be able to freely access this information. However, developing the infrastructure to provide large amounts of data to the public can be expensive, so in certain cases, a federal agency may consider charging access fees for certain data, akin to an entrance fee for a national park. However, such fees should solely support the development and upkeep of data infrastructure.

One successful example of a government agency taking advantage of an innovative financing model to build data infrastructure is the National Oceanic and Atmospheric Administration's (NOAA's) Big Data Partnership. Established through a series of Cooperative Research and Development Agreements (CRADAs), the Big Data Partnership is designed to help NOAA publish the large amounts of data it collects—20 terabytes per day, on average—but cannot afford to make publicly available.[6] The Big Data Partnership partnered with major cloud providers, including Amazon Web Services and IBM, to build out NOAA's data infrastructure at no cost to the government, so these partners could access more of NOAA's data to build useful products and services.[7] Importantly, the partner companies do not get prioritized access to this data, as the partnership stipulates all of it must be open.[8] The partners are willing to finance the

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[6] U.S. Department of Commerce, "U.S. Secretary of Commerce Penny Pritzker Announces New Collaboration to Unleash the Power of NOAA's Data," News release, April 21, 2015, https://www.commerce.gov/news/press-releases/2015/04/us-secretary-commerce-penny-pritzker-announces-new-collaboration-unleash.

[7] Alexander Kostura and Daniel Castro, Three Types of Public-Private Partnerships That Enable Data innovation," Center for Data Innovation, August 1, 2016, https://www.datainnovation.org/2016/08/three-types-of-public-private-partnerships-that-enable-data-innovation/.

[8] Ibid.

development of this infrastructure because the products they can build with this data, such as improved weather prediction services, will create a substantial enough return on investment.

WHAT SPECIFIC ADMINISTRATIVE OR LEGAL BARRIERS CURRENTLY EXIST FOR ACCESSING SURVEY AND ADMINISTRATIVE DATA?

There are two notable examples of administrative and legal barriers to accessing and using survey and administrative data.

The federal government has multiple agencies collecting the same types of data for economic metrics. The Bureau of Labor Statistics (BLS), Census Bureau, and Bureau of Economic Analysis (BEA) all collect and analyze employment, occupation, income, and other labor market and economic data to produce valuable statistics like productivity growth, state and national GDP, and employment rates that help make policymakers make informed economic policy decisions.[9] This leads to considerable statistical discrepancies between agencies. The issue is that neither of these metrics are necessarily wrong, but the differences in methods used and factors considered by each agency means the same question receives two largely different answers. The root cause of this is that Census can use data that BEA and BLS cannot because some of it is commingled with tax data, which cannot be shared under Title 26 of the Internal Revenue Code.[10] As a result, these statistical agencies cannot rely on an internally consistent dataset.

Another example of a specific barrier is that the Departments of Health and Human Services (HHS), Defense, Education and Justice oversee at least 10 different efforts to collect data about sexual violence—producing widely varying statistics that, on the surface, appear to measure the same thing.[11] As a result, policymakers and the public simply do not have reliable, easy-to-understand data about sexual assault, which can have serious consequences for the effectiveness and accountability of the criminal justice system and hinder efforts to combat sexual assault.[12] The wide variation in reporting can make research about sexual violence unnecessarily difficult,

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[9] Luke Stewart, "We Have a Sharing Problem," The Information technology and Innovation Foundation, June 13, 2012, http://www.innovationfiles.org/we-have-a-sharing-problem/.

[10] National Research Council et al., *Improving Business Statistics Through Interagency Data Sharing* (National Academies Press, 2006), 15.

[11] Government Accountability Office, *Sexual Violence Data: Actions Needed to Improve Clarity and Address Differences Across Federal Data Collection Efforts* (Washington, DC: 2016), http://www.gao.gov/assets/680/678511.pdf.

[12] Joshua New, "How Common is Sexual Assault in the United States? The Answer Depends On Who You Ask," Center for Data Innovation, September 1, 2016, https://www.datainnovation.org/2016/09/how-common-is-sexual-assault-in-the-united-states-the-answer-depends-on-who-you-ask/.

as comparisons between different groups are all but impossible when methodologies differ so greatly, and the lack of clarity about what these different statistics really mean provides fodder for toxic arguments that dismiss the severity of the problem of sexual assault, such as those that imply that false reporting of rape is commonplace, which is false.[13]

HOW CAN IDENTIFIABLE INFORMATION BE BEST PROTECTED TO ENSURE THE PRIVACY AND CONFIDENTIALITY OF INDIVIDUAL OR BUSINESS DATA IN A CLEARINGHOUSE?

There are a variety of tools and strategies useful for preserving the security and privacy of data. One of the most effective of these methods—de-identification—has been frequently criticized for being unreliable due to the perceived risk that bad actors could easily re-identify a data set.[14] However, while no information security method, including de-identification, is perfect, the risk of reidentification when data is properly de-identified has been greatly exaggerated by some commentators, and it would be a mistake to reverse existing federal policy based on these inaccuracies.[15] The notion that de-identification is an unreliable tool is commonly promulgated by commentators misinterpreting primary literature or failing to recognize that many instances of reidentification were only possible because the data was improperly de-identified in the first place.[16] For example, if a data set is properly de-identified in accordance with the Safe Harbor Standard defined by the Health Insurance Portability and Accountability Act (HIPAA) which requires the removal or modification of 17 specific data elements, only 0.04 percent of individuals are "uniquely identifiable."[17] It is important to note the significant difference between uniquely identifying an individual, which means recognizing a specific, discrete set of characteristics within a data set, and re-identifying an individual, which means gleaning a person's actual identity—his or her name, birth date, and so on—from a data set.

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[13] Ibid; Ashe Schow, "No, 1 in 5 Women Have Not Been Raped on College Campuses," *Washington Examiner*, August 13, 2014, http://www.washingtonexaminer.com/no-1-in-5-women-have-not-been-raped-on-college-campuses/article/2551980; Carmen Rios, "Rebel Girls: Our 'False Rape' Hysteria is Bullsh*t," Autostraddle, December 31, 2014, https://www.autostraddle.com/rebel-girls-our-false-rape-hysteria-is-bullshit-270299/; "False Reporting," National Sexual Violence Resource Center, 2012, http://www.nsvrc.org/sites/default/files/Publications_NSVRC_Overview_False-Reporting.pdf.
[14] Ann Cavoukian and Daniel Castro, "Big Data and Innovation, Setting the Record Straight: Deidentification Does Work," Information Technology and Innovation Foundation, June 16, 2014, http://www2.itif.org/2014-big-data-deidentification.pdf.
[15] Ibid.
[16] Ibid.
[17] Simon Cohn, "Ltr to Sec'y 2007 Dec 21 Secondary Uses," National Committee on Vital and Health Statistics, December 21, 2007, http://www.ncvhs.hhs.gov/wp-content/uploads/2014/05/071221lt.pdf.

IF A CLEARINGHOUSE WERE CREATED, WHAT TYPES OF RESTRICTIONS SHOULD BE PLACED ON THE USES OF DATA IN THE CLEARINGHOUSE BY "QUALIFIED RESEARCHERS AND INSTITUTIONS?"

In cases where data is inherently sensitive, even after de-identification, other methods should be used to protect data while also making it available to qualified researchers. For example, the Census Bureau operates Federal Statistical Research Data Centers (RDCs), which serve as a secure environment for sharing sensitive data with qualified researchers working on important, pre-approved projects.[18] The Census Bureau collaborates with several statistical agencies to operate the RDCs, such as the Agency for Healthcare Research and Quality and BLS.[19] While the focus of RDCs is statistical agencies, this model could be applied to other government agencies and government datasets with similar effectiveness. In addition, government agencies can require researchers to abide by licensing agreements for non-public data that imposes restrictions on how researchers can use the data.

CONCLUSION

Easy access to useable data plays a crucial role in informed-policymaking, and it is encouraging to see the Commission for Evidence-Based Policymaking working to increase the accessibility and usability of government data for this purpose. Overall, adhering to the principle that government data should be open and machine-readable by default would substantially improve the quantity and quality of data available for evidence-based policymaking.

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[18] "Federal Statistical Research Data Centers," U.S. Census Bureau, accessed December 14, 2016, http://www.census.gov/about/adrm/fsrdc/about/available_data.html.
[19] Ibid.

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0355
Comment on FR Doc # 2016-22002

Submitter Information

Name: Amy Gines

General Comment

I echo these concerns:

I am opposed to allowing greater data access. Children's data needs to be properly overseen and managed by their parents. Even in medicine, these children's data would only be allowed to be used in research with the informed consent of their parent or guardian. But in education, why do we feel that it is any less invasive? In fact, it has the potential to pigeon-hole children from an early age and limit their future possibilities. We live in an age where, for the first time in history, people who have never seen, spoken with, or cared about a particular child, will be able to know vast amounts of information about them and make decisions about them without the benefit of their parents as gate-keepers. In the past, parents were the only source of the vast amounts of information on their children. They could choose what information and to whom this information should be shared. Now, they don't even know that it is being shared. How can we possibly say that 'the best interests' of a child are paramount when this information is being proffered without any sort of knowledge of the individual or a motivation to maintain their privacy by those who know and care about them, their parents and their teachers?

PUBLIC SUBMISSION

Docket: USBC-2016-0003
Request for Comments for the Commission on Evidence-Based Policymaking

Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0356
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

Gathering personal information for a workforce data system or anything else flies in the face of our constitution. No sharing of personal data without informed consent.

PUBLIC SUBMISSION

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Comment On: USBC-2016-0003-0001
Request for Comments for the Commission on Evidence-Based Policymaking

Document: USBC-2016-0003-0357
Comment on FR Doc # 2016-22002

Submitter Information

Name: Anonymous Anonymous

General Comment

I strongly oppose any proposal that would lead to the creation of a centralized, federal clearinghouse of the personally identifiable information of all students, commonly referred to as a student unit-record system or national database.
The risk that such a federal database would pose to student privacy is immense; including the very real possibility of breach, malicious attack, or the use of this information for purposes not initially intended. Ever since a federal student unit-record system was banned by the Higher Education Act in 2008, the reasons against creating it have only become more compelling.
In the past few years, much highly personal data held by federal agencies has been hacked, including the release of the records of the Office of Personnel Management involving more than 22 million individuals, not only federal employees and contractors but also their families and friends.
The US Department of Education has been found to have especially weak security standards in its collection and storage of student data, and received a grade of D for its security protections.
In addition, preK-12 student data currently collected by state departments of education that would potentially be shared with the federal government include upwards of 700 highly sensitive personal data elements, including students' immigrant status, disabilities,

disciplinary records, and homelessness data.

I am also very concerned about recent revelations of the widespread surveillance on ordinary citizens by the federal government, and the way in which a national student data system would be used to expand the tracking of students from PreK into high school, college, the workforce and beyond. A federal data clearinghouse of student information could effectively create life-long dossiers on nearly every individual in the nation.

I urge you to strongly oppose the creation of any centralized federal data system holding students' personally identifiable information and to support the continuation of the ban in the report you provide to Congress.

Sincerely, Dawn Tapp, NJ, concerned parent

Appendix H: Prior Commissions Related to Evidence Building

During its fact-finding phase, the Commission on Evidence-Based Policymaking reviewed the findings and recommendations of several previous commissions, committees, and projects relevant to Federal evidence building. These commissions recommended ways to improve the country's evidence-building system, including suggestions for greater coordination and enhanced privacy protection. The Commission noted that many of the issues identified by these past commissions are still challenges today. The commissions reviewed for this report include:

1. Commission Appointed by the Secretary of Treasury, 1903.

   In 1903, the Secretary of the Treasury created one of the first commissions to address consolidation of statistical functions in the Federal government. The commission intended to merge the Treasury's Statistics of Income Division into the Department of Commerce, which already housed the Bureau of the Census and the Bureau of Labor Statistics. In her book, *Organizing to Count*, Janet Norwood states the reason this recommendation wasn't implemented was because "concentration of the power to conduct statistical inquiries in one place in the government, it was feared, would diminish the effectiveness of other agencies and create a statistical bureaucracy that might become more powerful than several other existing agencies."[1]

2. Report of the Task Force on the Storage of and Access to Government Statistics (the Kaysen Committee), 1966.[2]

In *Organizing to Count*, Janet Norwood describes the Kaysen Committee and summarizes its goals and outcomes. She states, "In 1966 the Bureau of the Budget established an independent commission to consider measures which should be taken to improve the storage of and access to U.S. Government statistics."[3] The Committee focused on the organization and operation of the Federal Statistical System. In their final report, Carl Kaysen and other members of the committee addressed how the decentralization and insufficient coordination of the Federal statistical system hindered its effective operation. The committee recognized the effort it would take to create a Central Statistical Agency, so it instead recommended two main ways to achieve the benefits of centralization and coordination, the creation of a new position, the Director of the Federal Statistical System, and of a National Data Center.[4]

3. Privacy and the National Data Bank Concept (House Committee on Government Operations), 1968.[5]

   After the Kaysen committee was convened, Congressman Cornelius E. Gallagher, the Chairman of the Special Subcommittee on Invasion of Privacy of the House Committee on Government Operations, organized hearings seeking information on recent recommendations about a national data bank (or center). The subcommittee's concerns stemmed not only from the Kaysen committee, but also an earlier 1965 report from the Social Science Research Council (Ruggles Report) and a report by Edgar Dunn,

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1. Janet Norwood, *Organizing to Count: Change in the Federal Statistical System* (Washington, D.C.: Urban Institute Press, 1995): 9–10.

2. Carl Kaysen, Charles C. Holt, Richard Holton, George Kozmetsky, H. Russell Morrison, and Richard Ruggles, "Report of the Task Force on the Storage of and Access to Government Statistics," *The American Statistician* 23, no. 3 (1969): 11–19. *http://www.jstor.org/stable/2682574*.

3. Janet Norwood, *Organizing to Count: Change in the Federal Statistical System* (Washington, D.C.: Urban Institute Press, 1995): 12.

4. Carl Kaysen, Charles C. Holt, Richard Holton, George Kozmetsky, H. Russell Morrison, and Richard Ruggles, "Report of the Task Force on the Storage of and Access to Government Statistics," *The American Statistician* 23, no. 3 (1969): 11–19. *http://www.jstor.org/stable/2682574*.

5. U.S. House Committee on Government Operations, *Privacy and the National Data Bank Concept*, 90 H. Rpt. 35.

Jr, of the nonprofit think tank Resources for the Future. After the hearings, the subcommittee produced a study, *Privacy and the National Data Bank Concept*. The study concluded that the creation of such a data bank was feasible and advisable only if privacy were a top priority. The House Committee on Government Operations recommended that no work on the data bank be done until privacy protections were more fully explored and guaranteed.[6]

In 1969, the Kaysen committee published an addendum to their report in *The American Statistician* responding to the House report. Kaysen concluded that the threat to privacy be addressed by Congress, such as by creating a statute governing the disclosure of information.[7]

4. Federal Statistics: Report of the President's Commission (the Wallis Commission), 1971.[8]

In August 1970 , the President charged the Wallis Commission with conducting a comprehensive review of the Federal statistical system. The President's directive posed three questions: what are the requirements for quantitative information about society; how to minimize respondent burden; and how to organize Federal statistical activities for the most effective utilization of statistics. The commission recommended extending the coordinating and auditing responsibilities of the Office of Management and Budget's (OMB) Statistical Policy Division (SPD). The commission also recommended that SPD work to increase coordination among the statistical agencies, including the promotion of legal safeguards. These points were combined in the recommendation to establish an independent Statistics Advisory Board to review and report on the activities of Federal statistical agencies.[9]

The commission also emphasized that funds should be set aside specifically for evaluating new statistical programs. The recommendation specified that OMB's role would be to review the data needed to evaluate six to eight domestic statistical programs. The recommendations called for finding a balance between the data needs of the public and the right to privacy of individuals. The Wallis Commission's recommendations led to the creation of the Committee on National Statistics (CNSTAT) at the National Academies of Science, Engineering, and Medicine, which was envisioned by the commission as an advisor to OMB on evaluating statistical programs.[10]

5. Privacy Protection Study Commission, 1977.[11]

The Privacy Act of 1974 called for the creation of a Privacy Protection Study Commission (PPSC), which issued its final report in July of 1977. The PPSC's report conveyed two central tenets for evidence building. First, research and statistical uses of data about individuals must exclude any result that would directly affect an individual's rights, privileges, or benefits. Second, government statistical and nonstatistical uses of data should be separated by a bright line, a principle referred to as "functional separation." These two core concepts have been carried forward into today's Federal privacy protections and statistical laws.

6. Commission on Federal Paperwork, 1977.[12]

The Commission on Federal Paperwork was charged by Congress and the President with

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6. U.S. House Committee on Government Operations, *Privacy and the National Data Bank Concept*, 90 H. Rpt. 35.

7. Carl Kaysen, Charles C. Holt, Richard Holton, George Kozmetsky, H. Russell Morrison, and Richard Ruggles, "Report of the Task Force on the Storage of and Access to Government Statistics," *The American Statistician* 23, no. 3 (1969): 11–19. *http://www.jstor.org/stable/2682574*.

8. Neil S. Weiner, "The Report of the President's Commission on Federal Statistics: A Summary of Recommendations, Views and Counterviews," *The American Statistician* 28, no. 2 (1974): 42–46. doi:10.2307/2683597.

9. Janet Norwood, *Organizing to Count: Change in the Federal Statistical System* (Washington, D.C.: Urban Institute Press, 1995): 12–14.

10. Ibid.

11. Privacy Protection Study Commission, Personal Privacy in an Information Society (Washington, D.C.: 1977), *https://epic.org/privacy/ppsc1977report*.

12. *Statistics: A Report of the Commission on Federal Paperwork,* (Washington, D.C.: 1977).

the task of creating recommendations to eliminate needless paperwork while ensuring that the Government could still have the information necessary to meet the mandate of law and operate effectively. The commission developed about 800 recommendations addressing a broad range of government activities. The Commission concluded that paperwork reform required greater support of Congress and proposed that Congress provide for paperwork assessment to be included in legislative reports.[13]

In 1977, the commission released a report focused on the Federal statistical system. This was largely in response to President Carter's Reorganization Plan #1, which would reduce the number of Office of Statistical Policy (OSP) employees in OMB by 28 percent. In 1977, there were 33 employees in the office, compared with an average of 70 employees in 1947. The commission recommended strengthening the staffing in OSP to ensure that OMB could be a coordinating unit for the Federal statistical system.[14]

7. Improving the Federal Statistical System: Report of the President's Reorganization Project for the Federal Statistical System (the Bonnen Project), 1979.[15]

In 1979, the President commissioned the Bonnen Project to comprehensively review the way the government collects, evaluates, and disseminates statistical data for the Federal government. Its report recommended that OSP be established in the Executive Office of the President. The Bonnen recommendations came at the end of the Carter Administration, which had moved most of OSP to the Commerce Department. During the same period, Congress passed the Paperwork Reduction Act that

moved the Office of Statistical Policy back to OMB and housed it in the newly created Office of Information and Regulatory Affairs. James Bonnen, the director of the project, saw this organizational change as a step backwards because it did not address the Project's findings. Specifically, he said, "statistical policy was now expected to function in a regulatory environment and compete against more important political issues."[16]

8. Economic Report of the President, Appendix B, "Improving the Quality of Economic Statistics" (The Boskin Working Group), 1990.[17]

In her book, *Organizing to Count*, Janet Norwood describes the Boskin Working Group's contribution to the 1990 Economic Report of the President. The working group initially focused on programmatic issues relating to economic statistical measurement and on budget issues. The working group eventually expanded its scope to address the lack of organization in the Federal statistical system because it directly impacted the programmatic issues they discussed. The working group explored duplication among Federal statistical programs and considered if there would be any cost savings from consolidation. In the end, however, they decided that any reorganization or consolidation would be too costly and perhaps ineffective. The working group instead recommended targeted budget investments and that the President develop a data sharing legislative proposal that would improve upon some of the practical limitations of having multiple statistical agencies contribute to the suite of Federal economic statistics.[18]

13. Commission on Federal Paperwork, Final Summary Report (Washington, DC: 1977). *https://hdl.handle.net/2027/umn. 31951d00818930g.*

14. Statistics(1977): 29.

15. James T. Bonnen, and others, "Improving the Federal Statistical System: Report of the President's Reorganization Project for the Federal Statistical System," reprinted in *The American Statistician* 35, no. 4 (November 1981).

16. James T. Bonnen, "[Improving the Federal Statistical System: Report of the Presidents Reorganization Project for the Federal Statistical System]: Comment." *The American Statistician* 35, no. 4 (November 1981): 209.

17. Economic Report of the President, Appendix B, "Improving the Quality of Economic Statistics" (Washington, D.C.: 1990), *http://www.presidency.ucsb.edu/economic_reports/1990.pdf*

18. Janet Norwood, *Organizing to Count: Change in the Federal Statistical System* (Washington, D.C.: Urban Institute Press, 1995).

This is a complimentary volume to the printed report,
"The Promise of Evidence-Based Policymaking."

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The Promise of Evidence-Based Policymaking

Report of the Commission on Evidence-Based Policymaking
Appendices E-H

September 2017