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OFFICE OF THE
INVESTOR ADVOCATE

February 9, 2021

Via Email to: Evidence@bea.gov

Lucas Hitt
Designated Federal Official
Advisory Committee on Data for Evidence Building
4600 Silver Hill Road
Washington, DC 20233

RE: Comments for the Advisory Committee on Data for Evidence Building
        Docket Number EAB-2021-0001

Dear Committee Members:[1]

        Thank you for the opportunity to submit comments in regard to the Request for Comments for the Advisory Committee on Data for Evidence Building. While the SEC is not a Chief Financial Officers Act agency and thus is not required to follow Title I of the Foundations for Evidence-Based Policymaking Act (Evidence Act), we hope our insights about evidence generation and organizational structures will be informative to other agencies and overall policy.

        The Office of the Investor Advocate (OIAD) at the U.S. Securities and Exchange Commission (SEC) was established by the Dodd–Frank Wall Street Reform and Consumer Protection Act (Dodd-Frank Act) with a mission to protect and advocate for investors, and a mandate to conduct research in support of that purpose.[2] In 2017, we launched one of the most comprehensive evidence generation programs in government, the POSITIER[3] investor testing initiative. Over the past several years, our achievements have been enormous, and we have greatly advanced the cause of evidence building in our agency and the greater policy community. Nevertheless, we do still face headwinds that inhibit our ability to use our tools to the fullest within our agency. We discuss these at length in our most recent semi-annual report to Congress—the Office of the Investor Advocate's Report on Activities for Fiscal

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[1] The Securities and Exchange Commission disclaims responsibility for any private publication or statement of any SEC employee or Commissioner. The views expressed herein are our own and do not reflect those of the Commission, the Commissioners, or other members of the staff.

[2] Securities Exchange Act of 1934, Section 4(g)(4), 15 U.S.C. § 78d(g)(4), states:
''(4) FUNCTIONS OF THE INVESTOR ADVOCATE.—The Investor Advocate shall—
''(A) assist retail investors in resolving significant problems such investors may have with the Commission or with self-regulatory organizations;
''(B) identify areas in which investors would benefit from changes in the regulations of the Commission or the rules of self-regulatory organizations;
''(C) identify problems that investors have with financial service providers and investment products;
''(D) analyze the potential impact on investors of—
''(i) proposed regulations of the Commission; and
''(ii) proposed rules of self-regulatory organizations registered under this title; and
''(E) to the extent practicable, propose to the Commission changes in the regulations or orders of the Commission and to Congress any legislative, administrative, or personnel changes that may be appropriate to mitigate problems identified under this paragraph and to promote the interests of investors.''

[3] The name POSITIER is an acronym for Policy Oriented Stakeholder and Investor Testing for Innovative and Effective Regulation.

Year 2020,[4] pages 12-15 and 51-65—which we are submitting with this letter. We provide below highlights, including a recommendation for process reforms within the SEC, and additional perspective. As the community associated with the Evidence Act is not normally a target audience for that report, we wish to draw the report your attention.

Specifically, this comment letter responds to the following questions from the "Request for Comments for the Advisory Committee on Data for Evidence Building"[5]:

"1. What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points they face in the evidence-based decision-making process."

And

"3. Which frameworks, policies, practices, or methods show promise in overcoming challenges experienced by governments in their evidence building?"

I.   The SEC in the Context of the Evidence Act

OIAD has consistently been a strong advocate for the use of evidence within our agency, and we have encouraged our agency to adopt parts of the Evidence Act that are required only of Chief Financial Officers Act agencies.[6] Our design of POSITIER attempted to provide a set of rapidly deployable and cost effective research tools that greatly expanded the potential for using evidence for policy, while providing instruments to allow greater public engagement with the policy development process. Our toolkit was not designed simply to respond to immediate requirements for use of evidence, but rather more broadly to anticipate future needs so that it would be rapidly deployable when opportunities arose, and scalable when more resources became available. In fact, POSITIER was designed after reviewing practices across a wide range of agencies.

We view the tools of POSITIER as useful not only for investor research and investor protection, but also as instruments for better overall management and effectiveness of the agency as a whole. By design, POSITIER actively aimed to build an infrastructure that would enable OIAD and the Commission to respond to the Evidence Act and other directives and executive orders that have attempted to advance the cause of evidence building over the past decade.[7]

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[4] *See* SEC, Office of the Investor Advocate, *Report on Activities for Fiscal Year 2020* (Dec. 29, 2020), https://www.sec.gov/files/sec-investor-advocate-report-on-activities-2020.pdf ("2020 Report on Activities").

[5] Office of the Under Secretary for Economic Affairs, Department of Commerce, Request for Comments for the Advisory Committee on Data for Evidence Building, 85 Fed. Reg. 81179 (Dec. 15, 2020), https://www.federalregister.gov/documents/2020/12/15/2020-27489/request-for-comments-for-the-advisory-committee-on-data-for-evidence-building.

[6] Memorandum, Executive Office of the President, Phase 1 Implementation of the Foundations for Evidence-Based Policymaking Act of 2018: Learning Agendas, Personnel, and Planning Guidance (July 10, 2019), https://www.whitehouse.gov/wp-content/uploads/2019/07/M-19-23.pdf.

[7] *See, for example,* Executive Order -- Using Behavioral Science Insights to Better Serve the American People (Sept. 15, 2015), https://www.whitehouse.gov/the-press-office/2015/09/15/executive-order-using-behavioral-science-insights-better-serve-american; and Memorandum, Executive Office of the President, Next Steps in the Evidence and Innovation Agenda (July 26, 2013), https://obamawhitehouse.archives.gov/sites/default/files/omb/memoranda/2013/m-13-17.pdf.

II.   POSITIER Accomplishments 2017-2020

POSITIER is a household finance and behavioral research program that provides a comprehensive infrastructure for the collection and analysis of experimental, survey, administrative, and other data. Since our first data collection in June 2017, POSITIER has conducted 24 high quality, nationally representative, probability-based surveys (all but 6 using unique survey instruments), several dozen experiments, five non-probability research studies, and nine qualitative studies. It has been estimated that we have reduced the government's typical data collection lifecycle by over 95%,[8] and we have fielded tests that cost considerably less than many larger scale research projects. By reducing costs and timeframes, we have endeavored to eliminate the excuse that research takes too long and costs too much. Rather than a primarily outsourced model, we aim to focus on continued development of expertise inside the agency so that OIAD builds internal capacity and knowledge to deploy for the complex and specialized problems that we face in promoting a healthy environment for investors. This work is urgent because many of our constituents depend on investments for retirement and other life goals even if they have limited means and limited investment expertise. POSITIER provides the tools for us to fulfill our mission to conduct research on the problems investors face and examine the impacts of proposed rulemakings on investors.

III.   Obstacles to Investor Testing

While our semi-annual report to Congress provides details specific to our program, we would like to highlight and reference some obstacles discussed in that report.[9] Many of these themes will be readily apparent to the evidence community, but we believe they are worth outlining for the purpose of this comment letter.

- **Evidence professionals and researchers often face strong cultural and institutional headwinds within their organizations (page 57)**. Integrating evidence often requires overcoming decades of non-evidence based practice, along with accompanying policies, procedures, and customs specific to an agency's established way of operating.

- **Evidence programs require adequate resources and conditions for success (page 55) –** In our case, the lack of adequate staffing has at times resulted in bottlenecks because we have a need to stretch our human resources over far more stages of the production process than is optimal.

- **Some testing tools are still regarded with skepticism (page 63) –** Government agencies need to find ways to overcome their naturally risk-averse tendencies in order to make innovation and evidence programs successful. Agencies need leadership to help carve out institutional space for evidence generation, but may also need legal and institutional changes to create a safe space for evidence generation. Ultimately, we look forward to a time when staff colleagues focus on the question of: "how do we make this happen?" rather than "what are all the reasons why this shouldn't happen?" One particular area that is often regarded as sensitive in our agency is the use of field experiments. We view field tests as essential to answering some of the research questions within our purview because in lab-style settings it is often difficult to create incentives that align with incentives in the real world. We acknowledge the sensitivities involved in such research and the need for caution, but also note that it may simply be that new approaches are often viewed skeptically. Concerns about the use of new methods (new to the agency, not to the research community) need to

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[8] *See* SEC, Office of the Investor Advocate, *Report on Activities for the Fiscal Year 2018* (Dec. 20, 2018), https://www.sec.gov/advocate/reportspubs/annual-reports/sec-investor-advocate-report-on-activities-2018.pdf.

[9] *See*, *e.g.*, 2020 Report on Activities, *supra* note 4, at 55-57.

be appropriately balanced against the consequences of adopting ineffective or harmful policies without appropriate evidence.

IV.   Proposal: A Step-By-Step Process for Evidence Generation

Our report suggests a process revamp for SEC rulemaking that would integrate social scientists earlier into policy development and, where applicable, make investor testing a routine part of the development process (pages 57-64). One concern is that in the SEC, social scientists and evidence experts are typically not fully integrated into policy development until the policy is almost final.

Our proposal for a reformed policy development process contains seven steps: problem identification, outcomes identification, refinement of outcomes measurability, development of a theory of change, iteration as needed to refine the theory of change, testing and evidence building, iteration again as needed through the entire testing and theory of change process, and publication of the results. We sketch out this process in our report in order to reinforce important steps along the way, while also highlighting the need for iteration in the learning process. Our proposal emphasizes the need for a different approach to policymaking that integrates social scientists into the policymaking process at early stages so that appropriate policy solutions can be identified early and vetted properly.

Development of the Theory of Change is truly the centerpiece of our proposed process. Too often, policy proposals focus on a proposed activity, rather than on a causal chain that links activities to outcomes using existing empirical and theoretical knowledge gleaned from relevant scientific disciplines. Moreover, to the extent that some theory of change exists, it may have been constructed by focusing first on the activities themselves. Instead, we articulate a process that puts the emphasis on starting with desired outcomes and working backwards within the causal pathway to identify potential activities that might support those outcomes. When one focuses on outcomes, a causal chain naturally leads to the development of potential alternative policies for which testing can yield insights and provide the basis for determining the most effective policy. In contrast, when one focuses on a particular activity as the starting point—for example, a new disclosure—testing is immediately circumscribed to a narrower range of questions.

Taking things a step further than our report, we would argue that—at best—this narrower range of questions may lead to optimizing the value of the specified activity (e.g. finding the best disclosure), rather than identifying and evaluating potential alternative activities (e.g. finding the best among policy options). From a policy perspective, this can lead to an optimized activity that is not particularly effective overall at promoting the outcomes of interest. At the same time, there are issues from an evidence generation perspective: an activity-focused theory of change can lead to what might be described as "dead end" testing—a set of test results that demonstrates no effects of the proposed activity, but also does not provide insights as to other potential policy paths to pursue. In effect, it can lead to a frustrating set of null results that ultimately does not lead to better policy. We would argue that one of the biggest reasons for failure and frustration in evidence environments is a failure to develop a clear theory of change that provides the basis for guiding testing. We also believe that a theory of change is essential for proper articulation of a policy even if testing is not feasible.

V.   Additional Considerations

We recognize that getting policy right is hard. While not every policy is conducive to rigorous evidence-based approaches, we believe that the evidence agenda is not close to a point of diminishing returns. Some additional issues that merit consideration:

- **Independence is essential (page 57)** – OIAD is fortunate it was created under the Dodd-Frank Act as an independent office. We have found this independence to be critical to maintaining the integrity of our research, but recognize that such independence is not universally available to other evidence programs.

- **OIAD's Paperwork Reduction Act (PRA) Exemption** – Our research activities operate under a PRA exemption specified in the Dodd-Frank Act. It is true that this helps expedite our research process considerably, but the design of our POSITIER infrastructure and the independence of OIAD are as equally consequential to rapid deployment as the PRA exemption. At the same time, our work relies heavily on statistical sampling using national probability-based sampling frames with individuals that have pre-committed to participate in study groups. We have been extremely cautious in our approach to study participants and submit all of our research to an Institutional Review Board and undertake other measures before any data collection takes place. While the PRA is often lamented inside of agencies because of massive restrictions on routine data collection, we encourage caution with respect to removing restrictions entirely. We have some fear of agencies without adequate research capacities sending surveys without adequate precautions, further intensifying already notable non-response issues with survey data collection. Note that agencies that have strong administrative data infrastructure may already have adequate tools to conduct data analysis without the need to trigger PRA review.

- **Use of administrative data** – While we have devoted attention to developing and integrating administrative data assets on investors as part of our research endeavors, these efforts have not yet borne fruit. We ultimately view this data as complementary or superior in many instances to the survey data upon which we rely because it can be arrived at with less intrusion and can be more accurate in many circumstances. Yet, at least partly because the SEC does not implement programs, the SEC does not have access to very much in the way of investor-related administrative datasets that are useful for attribution studies of the type that are consistent with our research agenda. Several internal datasets constructed by the regulatory community for enforcement and related purposes face huge operational, access, and other challenges in terms of using them for research purposes— particularly for the public-facing research to which OIAD is committed. We continue to seek out ways to integrate administrative data assets into our work, but have found this to be challenging.

Thank you for the opportunity to provide comments related to the Evidence Act. We welcome any follow up engagement or assistance we can provide to promote and facilitate your important work.

Warm Regards,

Brian Scholl
Principal Economic Advisor
Chief Architect, POSITIER Investor Testing Initiative
Chief Evaluation Officer
Office of the Investor Advocate
U.S. Securities and Exchange Commission

February 8, 2021

Mr. Lucas Hitt, Designated Federal Official
Advisory Committee on Data for Evidence Building
4600 Silver Hill Road, Washington, DC 20233

Via: Evidence@bea.gov

RE: Request for Comments for the Advisory Committee on Data for Evidence Building (85 Federal Register 81179)

Dear Mr. Hitt,

I am pleased to respond to the Department of Commerce's Request for Comments for the Advisory Committee on Data for Evidence Building. A call for comments was published in the *Federal Register* on December 15, 2020.

As the strategy director for data and measurement at Lumina Foundation, an independent, private foundation in Indianapolis that is committed to making opportunities for learning beyond high school available to all, I focus on ensuring data advances our collective understanding. The invitation for comments posted in *85 Federal Register 81179* put forth ten questions for consideration. While all ten questions touch upon critical elements of data policy and use, this letter focuses on question 7, which asks:

Question 7. Government Agencies have argued that secure data access has value because it (1) improves service delivery, (2) improves efficiency (lowers costs), (3) produces metrics for performance measurement, and (4) produces new learnings/insights from the data. Which of these propositions do you agree holds value and why? Do you have examples that demonstrate these benefits? Do you have other examples of the value of secure data access?

My professional experiences inform the following responses, which are in rank order of agreement with the propositions put forth in the call for comments.

Produces Metrics for Performance Measurement. Metrics for performance measurement often require the use of linked data repeatedly over a set period.

The example provided in Appendix A summarizes my experience working with colleagues at the Florida Department of Education to develop performance funding metrics for the 28 community colleges that make up the Florida College System. As this example will highlight, today's students are not enrolling in a single university for four-years, spending their days on the quad sipping lattes and then entering the workforce for the first time. Often, they are managing with care their education, work and personal commitments under tight timelines and challenging contexts. As a result, we need longitudinally linked data (I define this as data systems linking on a regular basis) to better understand and improve their journey.

Improves Efficiencies (Lowers Cost). A secure, accessible data environment saves taxpayers dollars and reduces costs.

Education and training providers often work diligently to connect with employers as they develop new programs to ensure there is a need and demand for their potential graduates. As the example in Appendix B outlines, longitudinally linked data helps to improve service delivery by augmenting cross-industry relationships with data to align

postsecondary program offerings with localized workforce needs. Further, financial barriers associated with justifying the need for a particular workforce program for less-resourced institutions are remedied.

<u>Produces New Learnings/Insights from the Data.</u> When data are securely shared and linked, evidence-based insights replace anecdotally inspired assumptions.

An example provided in Appendix C illustrates how a better understanding of students' learning journeys can result in a more targeted action. In this case, linking high school, postsecondary and workforce data advanced our understanding that students who left community colleges in Illinois were working at restaurants. This changed the how we thought about re-engaging learners who dropped out by recognizing a need to engage that industry sector as partners to develop targeted interventions.

<u>Improves Service Delivery.</u> Longitudinally linked data improves service delivery for every hour an employee spends surveying and gathering data on their own is an hour they are not focusing on implementation and improvement. Secure protocols and portals that link data allow entities to redirect human capital towards implementation and improvement while reducing the cost associated with data collection. The example in Appendix B also supports this point.

Lumina Foundation remains committed to the use of data to advance learning. In closing we would like to commend the Advisory Committee on Data for Evidence Building for their requesting comments from researchers, evaluators, contractors, government entities, and other interested parties to inform their work. Data is ubiquitous and our ability to capture, categorize, and longitudinally link it together to advance our collective understanding is paramount to creating a more perfect union.

I appreciate the opportunity to comment and hope you find them of value.

Sincerely,

Christopher M. Mullin, Ph.D.
Strategy Director for Data and Measurement
Lumina Foundation
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Indianapolis, IN 46204

Appendix A: Building Performance Funding Metrics

In 2014 the 28 community colleges in Florida came together, partnering with the Commissioner of Education and Florida Department of Education, to outline nine metrics they believed best represented their performance. Continuing into the 2015 legislative session these nine metric constructs were developed through workgroups, meetings, and feedback processes. Ultimately, the performance funding model consisted of four metrics – retention, completion, job placement and earnings.

As the metric constructs were operationalized and calculated, we soon learned the vast amount of data held in the Florida College System's Community College & Technical Center Management Information Systems (CCTCMIS) and the deservedly praised Florida Education & Training Placement Information Program (FETPIP) was not enough as we had to also identify and access data existing outside of the state's control. Given the high profile of these metrics and associated financial implications, it was imperative that the data be accurate. Though we faced challenges encapsulated in questions such as: How would we account for students who live in Pensacola, Florida and worked in Mobile, Alabama after graduation? What about students who left a public institution to attend a private institution?

To illustrate the challenge, Table A1 presents the learning journey for a single student who takes a fictitious but not fully unrealistic path over 4 years and the data source(s) needed to verify each activity for metric development.

Table A1: Data Sources Needed to Document a Four-year Learning Journey of a Fictitious Student

SEMESTER	ACTIVITY	DATA SOURCE(S)
FALL 2015	Enrolls in a public community college in FL	CCTCMIS
SPRING 2016	Transfers and enrolls in a technical center in FL	FETPIP
SUMMER 2016	Enrolls at a technical center, earns and Educational Certificate in Welding in FL	FETPIP
FALL 2016	Working in the Mobile, Alabama shipyards; Lives in Pensacola, FL	Federal WRIS2
SPRING 2017	Working in the Mobile, Alabama shipyards; Lives in Pensacola, FL	Federal WRIS2
SUMMER 2017, FALL 2017, SPRING 2018, & SUMMER 2018	Working in the Mobile, Alabama shipyards and enrolls part-time in an Architectural Design & Construction Technology Associate in Science degree program at Pensacola State College	Federal WRIS2, CCTCMIS
FALL 2018	Works at a federal office in Alabama after graduating with an A.S. from Pensacola State College.	FEDES, CCTCMIS
SPRING 2019	Works at federal office in Alabama, enrolls at an online for-profit university to pursue a bachelor's degree in business administration	FEDES, NSC
SUMMER 2019	Works at a federal office in Alabama, transfers to Pensacola Christian College to finish the bachelor's degree	FEDES, FLOSFA

Note. Acronyms detailed in the text.

In short, to calculate performance metrics for this one student we would need to access students records from the Florida College System (CCTCMIS, enrollment & completion), Florida's Technical College System (CCTCMIS, enrollment and completion), Florida's Office of Student Financial Aid (FLOSFA, to capture enrollment at a private college), the Florida Department of Economic Opportunity (work record), The Wage Record Interchange System 2 (federal-state partnership exchange for out-of-state workforce data, now the State Wage Interchange System [SWIS]), the Federal Employment Data Exchange System (FEDES; for federal employee work records), and the National Student Clearinghouse (NSC; online college enrollment) to provide an accurate account of their learning journey.

The repeated and secure access to data sets, such as those listed above, accessed to implement the performance funding model allowed us to develop metrics that colleges, and the public, would expect as we allocated millions of taxpayer dollars to incentivize the performance of colleges in Florida. Our ability to maintain their trust would not happen were it not for the ability to securely link data across a range of data systems maintained by governmental and non-profit entities.

Appendix B. Justifying Need & Equalizing Opportunity

In 2015 the ability for Florida College System institutions to offer workforce baccalaureate degrees remained under a legislative moratorium. In early 2015, my team and I engaged in conversations with college, legislative, executive, and departmental leadership to understand their concerns and develop a remedy.   There were several perspectives as to why the moratorium was put in place, but a common agreement was about the justification process for workforce baccalaureate degree programs to be approved.

After these consultations it became clear that the approval process needed to be more transparent and improved. Transparency had been improved the year before through the Academic Pre-Proposal Recognition System (APPRiSe); an advance notice of a public university or college's interest in starting a bachelor's degree had to be posted in this technological platform before intra-institutional meetings began to promote greater awareness and reduce later-term resistance.

I set a meeting with a colleague at the Florida Department of Economic Opportunity and shared one concern; namely that applications to start workforce baccalaureate degree programs had scant occupational demand data to justify the need for the degree programs. Those institutions who could afford it paid consulting firms to conduct occupational demand analyses, which had the impact of limiting access. Aside from the cost being a concern, these analyses were at a regional level. Since each colleges' service area, as prescribed in Florida statute, consisted of one or more counties the regional demand often covered more than one college's service area resulting in less accurate information and the possibility of duplicated services. Given this reality, the two agencies partnered to create employment projections by each college's service area. The result is the State College Projections Portal, developed and maintained by the FLDEO and incorporated by reference by the Florida Department of Education. With this targeted demand now readily available to all institutions, and program approval staff, we had a stronger basis upon which to feel confident in approving workforce baccalaureate degree programs. This refinement, along with others, resulted in the moratorium being lifted, colleges submitting more accurate demand data and a cost barrier being removed for institutions interested in serving the workforce needs of employers in their service areas by starting workforce baccalaureate degree programs.

Appendix C. Connecting Data to Improve Our Understanding

The Illinois Education Research Council (IERC), a research center created to inform education policy in the state of Illinois, had a data sharing agreement to receive datafiles on successive cohorts of high school seniors, and this data had been matched to postsecondary data to produce a number of studies to understanding college-going and outcomes of cohorts of students. Upon joining the team, we were able to secure workforce data because IERC was written into state statute. With this linkage from high school, to college and workforce data we had the opportunity to answer any number of relevant questions.

It is well known fact, that the community colleges serve students whose potential was structurally limited rather than maximized often have low graduation rates. One way to look at this problem is to think about what the "better" alternative to a college degree is for students who start college only to stop-out. I investigated the question with our longitudinally linked dataset and as a result we were able to share with policymakers that college stop-outs mostly worked in the food service industry. And, any attempt to re-engage students who stopped-out of a community college should include a strategy in partnership with that industry.

AISP Comments for the Advisory Committee on Data for Evidence Building
Submitted: Tuesday, February 9, 2021
Contact: adeliaj@upenn.edu

Actionable Intelligence for Social Policy (AISP), based at the University of Pennsylvania, works with state and local governments to break down agency silos so data can be shared securely and used collaboratively to improve outcomes. Our Network currently includes 23 states, nine counties, and four large cities that are actively sharing and linking cross-agency data, and we convene regularly to share learnings and best practices. Over the past thirteen years, we have witnessed major growth, impact, and innovation in this field. However, even with these advances, routine data sharing for evidence-based policy and practice remains time and resource intensive, and is still a challenge for many federal, state, and local agencies.

In our experience, the challenges that come with data sharing (including the immense time and effort it typically requires to negotiate *ad-hoc* data sharing agreements) are among the greatest barriers to building a foundation for evidence-based policy in government.

Common barriers, bottlenecks, and pain points related to data sharing include: (Q1&3)
- Relationship barriers – Data flow at the speed of trust, and trust can be difficult to establish across agencies interested in building evidence through data sharing. Too often agencies lack a common language, are focused on their own distinct priorities, and are operating under time and resource constraints. We have found that frequent, sustained, and collaborative cross-agency data *governance* is the key to overcoming these inevitable challenges.
- Real or perceived legal barriers – While navigating the disconnected web of privacy laws, it is difficult to get beyond the default "no" stance many agencies take towards data sharing. Agency counsel are conditioned to be risk averse. However, when agency leadership clearly articulates the benefits of sharing and empowers lawyers to "work towards yes," with guidance on best practices, legal counsel can support routine processes to ensure data sharing meets all legal and privacy requirements.
- Data quality standards and documentation – Data linkage and use for evidence-based policymaking is made much more difficult by lack of standardization (e.g., common fields in different datasets defined differently) and lack of good metadata to help assess data quality. Spending time and resources on these activities, as well as on upstream improvements to data collection, can make a difference at the local level, but strong federal guidance is needed.
- Secure and flexible technical approaches – There is much work to be done in advancing best practices and standards for data sharing technology, both technology that facilitates the linkage of data extracts from across agencies and technology that facilitates access to the linked datasets for analysis. In our experience, the focus should be on ensuring that purpose drives design and data remain a public asset. Too often, agencies each procure their own custom solutions only to find that data are "held hostage" by expensive and inflexible third-party technology providers. While these

technical challenges are common, we find they are usually avoidable or surmountable if relational, legal, and data issues have been properly approached and resourced.

It is well worth investing in solutions to these barriers, given the immense potential impact of data sharing efforts on agency capacity for evidence-based policymaking. Linked data, when used ethically, allow governments and their research partners to: (Q2)
- Understand the complex needs of individuals and families
- Allocate resources where they're needed most to improve services
- Measure long-term and interconnected impacts of policies and programs
- Better address systemic racism and promote equity

Some high-impact policy and program use cases include:
- Documenting the economic and social impacts of the COVID-19 pandemic
- Addressing school readiness and educational achievement gaps driven by out-of-school factors, such as housing segregation and access to early education
- Supporting better health outcomes for populations with complex disadvantages, such as those experiencing homelessness or those who were formerly incarcerated
- Combatting the opioid epidemic and addressing the ripple effects of substance use on children and families

We believe the work of the Advisory Committee for Data on Evidence Building is vital and made even more urgent by the pandemic, which has and will continue to require unprecedented cross-agency coordination at all levels of government.

We'd like to share the following recommendations with the Advisory Committee and look forward to future opportunities to support the federal, state, and local capacity-building opportunities described below. (Q4-Q10)

Federal capacity-building opportunities:
- Provide leadership on responsible data stewardship and meaningful stakeholder engagement in order to increase public trust in data efforts at every level of government. This will require transparency and plain language communication about what data are being collected, for what specific purpose, and how they will be stored, shared, and safeguarded.
- Support alignment of learning agendas across federal agencies and facilitate dialogue about shared or intersecting data needs. This is critical if the federal government is to create a coherent approach to complex challenges, such as pandemic recovery, economic mobility, and systemic racism.
- Require that agency learning agendas include a discussion of equity considerations in their data collection and evaluation strategies. This discussion should include strategies for improving the accuracy and consistency of demographic categories, which are currently captured differently between state agencies and even across different programs funded by the same federal agency. While this may require support for states

to update data collection, it could also leverage linked administrative data to generate aggregate statistics on racial disparities without the additional burden and privacy concerns associated with new data collections.

- Promote standards for algorithmic fairness, accountability, and transparency in agency decision-making to address legitimate concerns arising around the use of predictive analytics and machine learning tools, particularly when those tools are proprietary.
- Ensure that Chief Data Officers have expertise in the relational, legal, and technical aspects of data sharing and work to cultivate staff at all federal agencies with relevant expertise.

State and local capacity-building opportunities:

- Encourage clear guidance to states and local government from federal agencies regarding the permissibility of data sharing, especially regarding data sets that are often tightly restricted such as Unemployment Insurance records and birth records.
- Expand access to the proposed National Secure Data Service beyond the elite research community and create data products to meet state and local information needs. This process could be informed by a pilot program to promote cooperation among federal agencies and integrated data systems at the state level, testing methods for users to upload their data and link with federal sources for analysis.
- Incentivize states to develop and sustain data linkage capacity by increasing administrative set-aside dollars in federal programs that can be used for developing shared data infrastructure, including staffing (past examples of federal funding streams that supported state data capacity in this way include Preschool Development Block Grants, Race to the Top Funds (US DoEd), and Medicaid's Mechanized Claims Processing and Information Retrieval Systems 90/10 rule).
- Refrain from issuing new technical requirements (e.g., data security or IT standards) that are unattainable given current resource constraints without also offering flexible support for both federal and state agencies to meet them.
- Create a special grant program to fund innovation and capacity-building in state and local data sharing, with an emphasis on staffing—not technical solutions. The grant program should:
  - Be designed with input from states and their research partners
  - Encourage states to leverage existing infrastructure (e.g., state IDS, SLDS, Policy Labs, etc.) and partnerships to align rather than duplicate efforts.
  - Prioritize states with endorsement from and alignment across the executive and legislative branches around data sharing and evidence-building
  - Emphasize established best practices in data governance and legal frameworks, in addition to more technical topics like data security, linkage, and access.
  - Require that states seek support from civil society, including civil rights organizations, and provide funding for community engagement.

**Comments for the Advisory Committee on Data for Evidence Building
In Response to FRN Document 85FR81179**

February 9, 2021

Thank you for the opportunity to provide input. The American Economic Association (AEA) Committee on Economic Statistics and Committee on Government Relations offer comments on questions 3, 4, 6, and 9, and provide a link to their report to the Biden/Harris Administration on Necessary Improvement in the U.S. Statistical Infrastructure, which speaks broadly to the Advisory Committee on Data for Evidence Building's mission.

Question #3: Which frameworks, policies, practices, or methods show promise in overcoming challenges experienced by governments in their evidence building?

Answer: We contend that major improvements in the U.S. statistical infrastructure are necessary antecedents to progress on designing, producing, and assuring widespread access to high-quality federal data to inform policy making. Our report on Improving the U.S. Statistical Infrastructure (see: https://www.aeaweb.org/content/file?id=13507) commends actions to: prevent the politicization of federal statistics; strengthen considerably the role of the Chief Statistician of the United States; assure the Executive Branch supports the recommendations of the U.S. Commission on Evidence-Based Policymaking to help assure wide access to federal statistics and administrative data under high standards of privacy and confidentiality; use lessons learned from statistical collection during the COVID-19 pandemic to make standard statistical measurement protocols nimbler; facilitate the involvement of the private sector in federal statistics; develop fundamental processes and incentives that assure that federal statistical agencies, under sufficient privacy and confidentiality provisions, can access State administrative data for improved State and Federal statistics; resolve critical problems resulting from the decentralized nature of the Federal Statistical System; and increase the timeliness and granularity of economic statistics generated by statistical agencies and/or created in collaboration with private sources.

Question #4: The Commission on Evidence-Based Policymaking recommended the creation of a National Secure Data Service. Do you agree with this recommendation and, if so, what should be the essential features of a National Secure Data Service?

Answer: Many essential features of any National Secure Data Service are the same as those required in setting up any data repository. The AEA Data Editor extensively addressed these requirements in his response to "Request for Public Comment on Draft Desirable Characteristics of Repositories for Managing and Sharing Data Resulting from Federally Funded Research," which have great applicability to considering requirements for a National Secure Data Service. We recommend his observations, which are available at: https://www.aeaweb.org/content/file?id=11689

Question 6: If created, how should a data service be structured to best facilitate research and development of secure data access and confidentiality technologies and methods and agency adoption of those technologies and techniques?

Answer: In creating a data service, care should be taken not to introduce a new silo among the counterproductive silos represented by many federal statistical and other agencies. Hopefully the Advisory Committee will consider a data service that is distributed among a number of sites and existing and new institutions.

Question 9: What are the key problems and use cases where collaborative work between federal, state, and local authorities' data analysis can inform decisions?

Answer: An important use case is exemplified by the fact that the Bureau of Labor Statistics (BLS) currently has no access to states' Unemployment Insurance (UI) worker wage or claims records. With these records, BLS could produce new granular layoff statistics, reduce revisions in payroll jobs estimates, add new geographic, occupational and industry granularity to many of its programs (such as JOLTS and employment projections), reduce employer reporting burdens, and more. This could be accomplished as a component of UI system modernization currently being considered by Congress and the Department of Labor. Elements include securing BLS access to the records, standardizing how records are delivered, enhancing wage records (with hours, occupation title, and work location), charging BLS with producing new economic indicators from claims data, funding state LMI offices' use of improved data, and allowing BLS to share curated wage records with state workforce agencies to inform operations, labor shed analyses and program evaluations.

February 9, 2021

Lucas Hitt
Designated Federal Official
Advisory Committee on Data for Evidence Building
4600 Silver Hill Road
Suitland, MD 20746

Docket ID: EAB-2021-0001
Comments for the Advisory Committee on Data for Evidence Building

Dear Mr. Hitt,

On behalf of the American Educational Research Association (AERA), thank you for the opportunity to provide comments for the Advisory Committee on Data for Evidence Building. Our response will focus on questions 2, 4, 5, 6, 7, 8, and 10.

The American Educational Research Association (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. Our members use and analyze federal statistics and data in their research and depend on the objectivity, trustworthiness, and accessibility of this information to best improve, evaluate, and assess the impacts of education 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. Furthermore, AERA members participate in 25 established Special Interest Groups focused on various aspects of evaluations and statistics.

AERA is a longstanding supporter of the work of the bi-partisan Commission for Evidence-based Policymaking and the aims of the Evidence-based Policy Act of 2018 to modernize the U.S. data infrastructure to foster evidence-based policymaking. In other letters and comments, AERA has been a strong advocate of expanding access to and use of administrative, survey, and linked data within and across agencies (as well as across states) building upon our knowledge of how to do so safely and securely consonant with privacy and confidentiality concerns.

Response to Question 2

There are any number of examples of how use of federal data has informed policymaking. Most recently since COVID-19, the Census Household Pulse Survey provided invaluable data regarding the economic impact of COVID-19 on families across the nation. The indicators from the Pulse Survey have provided valuable information in guiding the development of emergency relief legislation. In the education sphere, data in the Civil Rights Data Collection within the U.S. Department of Education have been an essential resource in identifying disparities in educational access across race and gender identity.

Response to Question 4

We strongly concur with the recommendation of the Commission for Evidence-based Policymaking ("the Commission") to create a National Secure Data Service (NSDS). We also agree with several of the Commission's recommendations on the governance structure and protection of personally identifiable information in the use and linkages of data. We also concur that federal agencies should be able to share and link data from federal agencies under the Confidential Information Protection and Statistical Efficiency Act (CIPSEA). We also agree with recommendation 2-7, which would allow state administrative data to be included for the purposes of use of statistical information. In addition, we concur with recommendation 4-3 to be transparent in providing a tool to search the approved projects using confidential data.

We also appreciate the ongoing work to develop and implement the Federal Data Strategy, which incorporates several practices and principles that align with the protections that would be required for the NSDS. The Federal Data Strategy principles include the ethical use of data, protecting privacy and confidentiality, and data stewardship. The five broad objectives underlying practices (govern and manage data as a strategic asset, protect and secure data, promote efficient use of data assets, build a culture that values data, honors stakeholder input and leverage partners) are essential for secure and sound data use and for engendering trust. Several elements in the 2020 action plan, including the creation of a standardized one-stop research application and the development of an automated tool for Information Collection Reviews, will be helpful for launching the NSDS.

Response to Question 5

Federal agencies are required to adhere to laws and regulations that protect privacy and confidentiality. In education, the Family Educational Rights and Privacy Act (FERPA) and related guidance from the Department of Education set parameters around the use of student information, with penalties in place for the disclosure of personally identifiable information (PII). We recommend that the 2011 guidance that allows for the third-party use of data for research purposes be retained and further reinforced to reduce ambiguities regarding research and evidence-based policy use.

In addition, the Education Sciences Reform Act and the statistical standards of the National Center for Education Statistics (NCES) include provisions around the confidentiality of data that the agency collects along with penalties for disclosure of PII. NCES has pioneered making available data sets with 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. The Institute of Education Sciences (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).

We mention these laws and sets of guidance both to point to their importance for evidence-based policy research in education and to signal the potential importance of such provisions in other federal agencies.

Response to Question 6

We have followed with great interest the various options to establish a National Secure Data Service. Taking into consideration the elements emphasized by the Commission in its 2017 report (see https://www.cep.gov/report/cep-final-report.pdf) and the wisdom of the Committee on National Statistics (CNSTAT) of the National Academies in its reports also issued in 2017 (https://www.nap.edu/catalog/24652/innovations-in-federal-statistics-combining-data-sources-while-protecting-privacy), we are drawn to the careful analysis of options and recommendations set forth in the July 2020 Data Foundation Report, *Modernizing U.S. Data Infrastructure: Design Considerations for Implementing a National Secure Data Service to Improve Statistics and Evidence Building* (see https://www.datafoundation.org/modernizing-us-data-infrastructure-2020). We recommend that very high consideration be given to using the approach of a new Federally-Funded Research and Development Center (FFRDC) and to locate responsibility for it at the National Center for Science and Engineering Statistics (NCSES) at the National Science Foundation (NSF). With the experience of NSF with FFRDCs and NSF's role as an independent agency with the mission of the wellbeing of science, NCSES is well situated as a statistical agency to take on this responsibility.

Response to Question 7

While all of these propositions for secure data access hold high value, we would like to specifically highlight the value that federal data have in producing new learnings and insights. As one example, the Educational Opportunity Project at Stanford University has linked data on student achievement from the EDFacts database at NCES to school identifiers, poverty rates, and subgroup data. Research that has linked data from the Stanford Education Data Archive (SEDA) with school finance data has shown that students in areas that were hardest hit by the economic downturn during the great recession also were more likely to have lower educational achievement than areas that were less affected.

The State Longitudinal Data Systems (SLDS) program in NCES is an exceptional example of data improvement, access, and safe and secure use that has contributed to findings in education on many important topics, including teacher preparation and retention in the workforce, the examination of elementary school test scores as a predictor of high school success, and the evaluation of state education policies. IES is also funding grants to researchers who are partnering with state education agencies to examine the long-term effectiveness of state education programs.

We also want to highlight a couple of examples where federal agency data can be used to improve service delivery and reduce barriers to postsecondary education. Students and parents filing the Free Application for Federal Student Aid (FAFSA) with the Department of Education are able to retrieve tax returns with the IRS Data Retrieval Tool. Creating access to data between these two agencies helps reduce the time and burden to complete the FAFSA. In addition, students seeking information on postsecondary education have used the Integrated Postsecondary Education Data System for data on college costs and available majors at higher education institutions.

Response to Question 8

As the nation has grappled with and responded to the COVID-19 pandemic, there is a tremendous need for data to inform evidence-based decisions. This is particularly true in decisions that state and local policymakers are facing in how they can safely reopen schools. Public health data, including the prevalence of community spread of the virus, can inform these decisions.

The Department of Education also relies on data from state and local agencies to provide a national picture of educational policy and practice, and this is one area where guidance from the advisory committee could be helpful for federal agencies. As an example, the IES and NCES have proposed a school pulse survey to gather real-time data on in-person and remote instruction, curriculum response to address learning loss, and the availability of personal protective equipment to help ensure the safety of teachers who are in classrooms. Federal statistical agencies should be afforded the flexibility and resources in order to respond to emerging data needs of policymakers and additional stakeholders needing sound data for evidence-based decision making.

Response to Question 10

The federal government can take several actions in order to provide incentives to address gaps and needs at the state and local level. First, we encourage Congress to increase funding and ensure adequate staffing levels at statistical agencies to support state and local agencies in data collection. The SLDS program has experienced a high demand in interest from state education agencies that have been underfunded in recent years. Appropriations for this program have remained relatively frozen. Increasing funding for programs like SLDS could support additional states and priorities to continue

to build and expand data infrastructure, especially at a time when states are seeing a decrease in revenues as a result of the pandemic response.

Second, federal agencies can work in partnership to develop and implement data standards to facilitate data linkages for policymaking and evaluation purposes. As one example, NCES has developed the Common Education Data Standards that provide voluntary, recommended practices for the standardization of data indicators, interoperability, and data governance models. The Office of Management and Budget and the National Academies of Science, Engineering, and Medicine can provide guidance to inform agency practices.

Thank you again for the opportunity to provide comment. Please do not hesitate to call on AERA if we can be provide additional information to inform the Advisory Committee's thinking as it moves forward in implementing the Federal Data Strategy and the recommendations of the Commission on Evidence-based Policymaking.

Sincerely,

Felice J. Levine, PhD
Executive Director
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202-238-3201

ANONYMOUS, First name M from Washington, DC

Thank you for the opportunity to provide comments on Data for Evidence Building. As a longtime data practitioner, I would like to submit the following comments. Central Questions 1. The main challenges faced by all levels of government include procuring technologies and tools to centralize data and properly monitor access, knowledge on how to protect privacy, and understanding equity in existing data. The procurement process is lengthy and cumbersome. It doesn't allow for flexibility in design or any trial and error. Adjusting the sole source and piggyback contracts could prove useful in this regard. A better understanding of privacy promotions is needed. Data stewards should know where the data is coming from, who it does and does not represent, that de-idntifying is not a substitute for privacy, and that metadata should not be exposed. Equity in data is also needed. Who is represented and, in many cases, who is not represented in the data. People not represented may be the most at risk for harms from decisions made using a data that does not include them. 2. The Census Bureau offers some of the best data for policy making. They are in the process of increasing transparency and creating formal privacy protections. 3. Frameworks, policies, practices, and methods are still evolving. Procurement is once again an area ripe for improvement. Having a procurement process that reflects policy will help. Solutions should be accessible to everyone - terms and conditions for website use and providing data should be clear and, literally, up front. It should be the first thing someone sees when asked for data or visiting a public website. Digital content should be easy to read for all levels and abilities. Cybersecurity training should be required for staff, with annual refresher courses, and offered to the public for free. Proper funding should be given to support operations and testing of new technologies and methodologies. Incentives can be given to jurisdictions that collaborate on projects and include the public in their design process. Troubleshooting support should be available, for government employees and the public accessing the data, at a minimum during business hours. Collaboration with the private sector could be useful. However, contracts and agreements should always benefit and protect the public. They should never be written to the vendor's advantage. 4. The creation of a National Secure Data Service could be useful if it has the following essential features: The ability to work across agencies and departments. The ability to audit current data practices. Inclusion of multi-disciplinary (sector, thought, demographic) outreach and feedback loops. 5. Privacy can be protected by formalizing data protections and taking into consideration individual, attribute, and inference modes of re-identification. Secure Data Access 6. A data service should have robust privacy protections in place such as the requirements to sign agreements not to share data. Accessibility of confidential data with a justified purpose only. Enforce consequences to breaking agreements. Use best data practices like encryption, limit data portability. 7. Public transparency of how data is used should be required of governments. Meta and paradata should have the same protections as all other datasets. Please show the numbers that data lowers cost. Technology systems required to support data are costly and privacy protections take vigilance, as the needle is always moving for nefarious actors. In addition, what is the cost to individuals not represented in the data? Data and cybersecurity trainings take effort and we should move away from the narrative of cost saving. Protecting privacy is a national, state, and local security issue not to be taken lightly (or provided to the lowest bidder). Data Services to Federal, State, Local Agencies and the Public 8. The most pressing need is data that is fit for use. Federal agencies need to work with state and local officials to understand these use cases and how they interact with each other. Sharing data should occur only through protected communication lines. Data should be encrypted in transit and at rest. Clear guidelines, trainings on how to access the

data, and continually updating protections should be monitored and implemented. 9. Explainability is key for communication. Finding a common language will go a long way. For example, a term like "differential" resonates differently depending upon discipline. Figuring out those tension points before a project and adjusting when needed during the process will go a long way for collaboration. Infrastructure for Meeting Public and Evidence Building Needs 10. No cost education, access to best practices, and the use of intermediaries would assist with capacity and needs. The federal government is in a better position to provide these than local governments.

Federal Statistical Research Data Center (FSRDC) Executive Directors' response to the Request for Comment from the Advisory Committee on Data for Evidence Building

Please accept the following responses to the set of 10 questions included in your Federal Register Notice (https://www.federalregister.gov/documents/2020/12/15/2020-27489/request-for-comments-for-the-advisory-committee-on-data-for-evidence-building).
They are submitted jointly by the executive directors of the 32 FSRDCs around the country (https://www.census.gov/about/adrm/fsrdc/locations.html). I have organized the material in order according to those questions.

Sincerely,
Wayne Gray, Executive Director, Boston Federal Statistical Research Data Center

For the FSRDC Executive Directors - February 9, 2021

1. What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points they face in the evidence-based decision-making process.

Few agencies have their own pool of skilled researchers able to employ the sophisticated statistical techniques that would produce valid causal inferences for evidence-based decision-making. However, agencies are understandably reluctant to provide access to their data for researchers from outside the agency unless they can be sure the data will be protected. Years of experience may be needed to build the trust of agencies to allow their data to be used. The FSRDCs provide a cost-effective way to engage the services of the academic community for these evidence-building efforts, as those services are provided at no direct cost. The ability for the academic community to provide these services depends critically on their being sufficient support to maintain the FSRDC network, including the staff of both federal agencies and institutional partners who support researchers in understanding, accessing, and working with restricted federal data resources.

In addition, many projects require data from multiple agencies. Navigating the administrative hurdles across agencies and between layers of government is one of the most difficult challenges for building datasets usable for evidence-building. Agencies providing data operate under different legal restrictions and can have different interpretations of the same statutes. Projects that combine data from multiple sources are especially vulnerable because everyone needs to say "yes" before the project can proceed. The effort required to build a supportive coalition of agencies is often prohibitive for any individual project. Further complications may arise if projects require data to be obtained from non-government sources. Clear safeguards that allow data sharing for evidence building, while prohibiting sharing that would infringe on privacy or allow the use of data for enforcement purposes, would make valuable evidence-building projects possible.

2. What are examples of high-impact data uses for evidence-based policy making that successfully effected change, reduced costs, or improved the welfare of citizens?

Evidence-based policy making relies on both basic and applied research. Basic research provides a better understanding of the impacts of policies in general and how individuals and businesses respond to those policies. This is often carried out by academic researchers advancing the borders of scientific knowledge. Applied research is targeted at particular policy decisions and may be carried out by consultants and contractors working for the agencies to support their policy deliberations.

Over the years, researchers working in the FSRDCs have conducted hundreds of research projects with important implications for policy – focusing on trade, productivity, and health among many other topics. Many of these projects are described in the RDC Project Metadata at https://www.census.gov/about/adrm/fsrdc/about/ongoing-projects.html. These have generally been of the basic research type and the vast majority have involved academic researchers or academic researchers working with scientists in statistical agencies, the Federal Reserve System, and federal agencies.

FSRDC projects have included researchers and analysts from consulting firms and contractors. Both the Evidence Act and the FSRDC charter explicitly include the goal of supporting evidence-building activity; access by consultants and contractors could expand in the future to provide greater support for such applied research. The FSRDCs have also made it possible for academic researchers to collaborate in many internal Census projects using linked administrative, census, and survey data, including projects developing new privacy protection methods, improving record linkage methods, and developing new federal data products.

3. Which frameworks, policies, practices, or methods show promise in overcoming challenges experienced by governments in their evidence building?

As noted under question 1, challenges experienced by government agencies in their evidence building include a limited pool of skilled researchers within the agencies, a reluctance to make their data available to outside researchers, and the need to combine data from multiple agencies.

For over a quarter-century the FSRDCs have supported and created connections among thousands of researchers from well over a hundred academic and research institutions who collaborate on projects through the shared computing environment. The FSRDCs provide those researchers with secure access to confidential data under procedures that protect privacy and support the researchers in their work. They have experience in hosting data from multiple agencies and are gaining experience with projects that merge data across agencies. This long track record has generated confidence among statistical agency data providers so that there are now five principle statistical agencies (Census, BLS, BEA, NCHS, and NCSES) participating directly in the FSRDCs and over a dozen agencies who trust its security precautions sufficiently to make their restricted data available in the FSRDCs.

The structure of the FSRDCs provides a local researcher community that helps inculcate researchers into the "culture of confidentiality" necessary to safeguard the data. It also supports researchers through the RDC Administrator and Executive Director, who provide outreach about

the research possibilities and guidance in developing the research proposal, working with the datasets, and preparing research results for disclosure avoidance review. The partnership with the academic institutions also provides millions of dollars in direct support of the FSRDC network, making it possible for the federal statistical agencies to leverage the volunteer efforts of the academic research community.

4. The Commission on Evidence-Based Policymaking recommended the creation of a National Secure Data Service. Do you agree with this recommendation, and if so, what should be the essential features of a National Secure Data Service?

Yes, a National Secure Data Service would provide a valuable tool to assist with evidence-based policymaking. Any NSDS should be Accessible, Secure, Efficient, and Equitable. The FSRDCs provide an example of a system embodying these characteristics. FSRDCs are:

Accessible to a wide range of users since they offer a publicly available portal for applications to use the data (https://www.icpsr.umich.edu/web/pages/appfed/index.html), expert technical assistance with the process provided by the RDC Administrators and Executive Directors, and secure physical access at the FSRDCs located throughout the country along with opportunities for virtual access to data where that has been approved by the custodial statistical agency.

Secure in their data access that protects the data subjects, data controllers, and researchers. This includes comprehensive vetting and training to authorize users and a secure Virtual Desktop Infrastructure controlling data access. Protection of the data subjects is accomplished through proposal review, de-identification of research data, and statistical disclosure controls over all results to be published, all of which is done inside the FSRDCs, before any results are released for the researcher to use outside the secure setting.

Efficient as the FSRDC network streamlines data discovery, project brainstorming and scoping through assistance from expert RDC Administrators and Executive Directors with experience in proposal writing, training, and technical assistance. Having a broad network saves researchers time and money, as most RDCs have agreements with local organizations that offer researchers who are affiliated with their institutional or consortium members access free of charge.

Equitable since it's not just for "insiders" with connections to agency staff and located near agency headquarters. FSRDCs are located throughout the country and available to most researchers regardless of discipline or tenure. Researchers using FSRDCs include students, professors of all ranks (assistant, associate, and full), employees of think tanks, agency contractors, and other evidence builders.

One model of an NSDS would include a process whereby the data from multiple sources could be linked to create a dataset for a particular project, but the linked research dataset would only exist for the duration of the project rather than being archived permanently. This could raise concerns with research replicability, if the linked research dataset was no longer available. These concerns could weaken the trust placed in the research results, making them less useful to support policy decisions. One possible approach would be to preserve the actual record linkages

(without the accompanying data) in a secure but accessible archive through a mechanism such as the FSRDCs. In that case, future researchers could reconstruct the linked research dataset using the archived linkages, enabling the earlier analysis to be replicated. The FSRDCs could also provide secure access to the linked research dataset while the analysis is conducted.

There are considerable economies of scale made possible through the FSRDCs, as the Administrators gain experience working with researchers on many projects and share that experience with new researchers. The FSRDCs and participating agencies have invested time and effort in developing the procedures and processes that enable large numbers of researchers to work through project development, proposal review, project administration, and final output clearance. Having the projects run through the same system also simplifies things for the partner agencies, since the application process can be documented and routinized, rather than dealing with idiosyncratic requests for data access from individual researchers.

While there are economies of scale in the FSRDCs, the operation is not free. The 32 RDC locations send over $4 million per year to Census, mostly to cover the salary of the RDC Administrators, but also including about $500,000 to cover some costs of program management and disclosure avoidance review. In addition, they provide the physical space for the RDC, the salary of the RDC Executive Director, and other local costs, bringing the total costs to the RDC partners to about $6 million per year. The Census Bureau and other partner agencies spend millions more each year to cover the computing and administrative costs for the FSRDCs.

Expanding the FSRDCs with more research projects, more researchers, and more RDC locations would require additional funding for new locations or expansion of existing locations (even with expanded virtual access), more RDC Administrators, and more staff to manage the administration and conduct disclosure avoidance review. These funds are simply not available within the current funding structure. In addition, further investments should be made in developing common application processes across agencies, improving documentation of the available research data, and providing templates to simplify the various stages of the research process. Finally, some partner agencies charge fees to researchers using their data as a way of recovering their costs of participating in the FSRDCs, which can limit access to their data for researchers with less funding.

5. How can federal agencies protect individual and organizational privacy when using data for evidence building? Recommend specific actions the Office of Management and Budget and/or other federal agencies can take when using data for evidence building, as well as suggested changes to federal laws, policies, and procedures.

It is important to have firewalls in place that separate the data used for statistical and evidence-building purposes from the data used for enforcement and policy implementation. Where possible, data should be de-identified before being made available to researchers and analysts. Sensitive, re-identifiable data should be used only in secure settings and for statistical purposes, with only the results of the statistical analysis being released and with safeguards to ensure privacy protection.

FSRDCs provide an example of one way to protect individual and data controller privacy. Researchers are required to describe their methodology and planned outputs in their research proposals, and these proposals are reviewed by agency staff to identify any disclosure concerns. This forces researchers to think about disclosure issues when designing their project and helps ensure that they don't waste time producing results that cannot be released. Research results obtained within the FSRDCs go through disclosure avoidance review before they are released to the researcher for external use.

One roadblock to expanding the evidence-building capacity at the federal level is the variety of requirements for data access across different agencies. The FSRDCs have been working with partner agencies to identify those different requirements, but developing a more consistent set of requirements would involve changes to agency policies and, in some cases, the laws regarding their data. There are also restrictions on combining data from different agencies which have required separate agreements for each project using those linked data. Developing general agreements for data sharing across agencies would be an important step in facilitating evidence-building research projects.

One area that would be challenging for any NSDS is the need for rapid availability of data and analysis to support decision-makers in emergency circumstances such as Covid-19. Typical evidence-building projects may take years to plan and execute, but during 2020 many projects were carried out in weeks or a few months, combining existing government data with rapidly-available private data. The data service might need to have different procedures or at least some sort of priority system to ensure that results can be obtained quickly enough to be useful for the policy decisions needed to address the emergency.

6. If created, how should a data service be structured to best facilitate (1) research and development of secure data access and confidentiality technologies and methods, (2) and agency adoption of those technologies and techniques?

Especially in the initial stages, it would be important to develop the data service in a setting with high levels of data security. The FSRDCs could provide a secure environment in which to compare current data linkage and confidentiality protections with possible alternatives, such as open differential privacy approaches and model-driven methods to set and monitor privacy budgets.

7. Government agencies have argued that secure data access has value because it (1) improves service delivery, (2) improves efficiency (lowers costs), (3) produces metrics for performance measurement, and (4) produces new learnings/insights from the data. Which of these propositions do you agree holds value and why? Do you have examples that demonstrate these benefits? Do you have other examples of the value of secure data access?

The benefits of secure data access described here could arise from both descriptive and model-driven analyses. A descriptive analysis could identify differences in service quality or costs across different providers within a particular program, providing a way of measuring

performance and encouraging under-performing units to improve. A model-driven analysis could seek to understand reasons for performance differences, leading to recommendations for structural changes in the program that could improve overall performance.

There is also the question of the efficiency of the secure data access process itself. A broad-based secure data access system provides considerable economies of scale. For the FSRDCs, individual RDC Administrators gain experience working with researchers on many projects and share that experience with new researchers. The FSRDCs and participating agencies have invested time and effort in developing the procedures and processes that enable large numbers of researchers to work through project development, proposal review, project administration, and final output clearance. Having the projects run through the same system also simplifies things for the partner agencies, since the application process can be documented and routinized, rather than dealing with idiosyncratic requests for data access from individual researchers. The system is not simply the computing platform, as the FSRDCs now provide multiple (in-person and virtual) tiers of access, or the single application portal, but the network of people who share knowledge and improve practices across universities and statistical agencies.

8. What are the most pressing data needs of state and local decision makers and how would making data accessible from federal agencies help meet those needs? To share data, what guarantees do data owners (or data controllers) need regarding privacy, data stewardship, and retention?

Having a federal data system that incorporates state and local data is important for evidence-building research, even for questions originating at the state and local level. Americans are a mobile people, moving across local and state lines, so integrated data infrastructures are critical to understanding the implications of state and local policies, and allow us to benefit from the experimentation of our federal system. A federal system could establish standards for data quality and documentation, with a common framework for organizing the data coming from different states that would allow research to be conducted more efficiently. Differences across states in their policies can provide clear evidence of the impact of those policies, making datasets covering multiple states much more valuable than a single state's data. Given the mobility of the population across state boundaries, the full impact of one state's policies may not be seen if the analysis is restricted to data from that state – and a better understanding of the factors driving interstate mobility would itself be an important contributor to designing optimal state-level policies. Finally, a federal system accessible to researchers from around the country would expand the potential pool of researchers working on any given problem.

For a federal data system to win the confidence of state and local data providers, its security arrangements would need to inspire their confidence. The FSRDCs offer Safe People, Safe Projects, Safe Settings, Safe Data, and Safe Outputs. Before researchers gain access to the FSRDCs, they undergo a security screening. Before projects are approved, they are reviewed by the agency or agencies providing the data. Each RDC is a secure Census facility, with a keycard-controlled access door, security cameras, and a Census employee on-site. No data reside in the RDC itself but on Census Bureau servers, with all work being done through a secure Virtual Desktop Infrastructure (VDI). Virtual access to FSRDCs leverages the same VDI

technology. Before any research results are released outside the RDC they go through a disclosure avoidance review by the agency providing the data.

9. What are the key problems and use cases where collaborative work between federal, state, and local authorities' data analysis can inform decisions? What are key decision support tools? How would greater communication about data and tools benefit expanded evidence building?

Having a federal data system that also incorporated state and local data is important for evidence-building research, even for questions originating at the state and local level. A federal system could establish standards for data quality and documentation, with a common framework for organizing the data coming from different states that would allow research to be conducted more efficiently. Differences across states in their policies can provide clear evidence of the impact of those policies, making datasets covering multiple states much more valuable than a single state's data. In addition, given the mobility of the population across state boundaries, the full impact of one state's policies may not be seen if the analysis is restricted to data from that state – and a better understanding of the factors driving interstate mobility would itself be an important contributor to designing optimal state-level policies. Finally, a federal system accessible to researchers from around the country would expand the potential pool of researchers working on any given problem.

10. What basic public data services are essential for a data service to address existing capacity gaps and needs? What infrastructure or incentives can the federal government create that locals and states cannot?

Having a federal data system that also incorporated state and local data is important for evidence-building research, even for questions originating at the state and local level. A federal system could establish standards for data quality and documentation, with a common framework for organizing the data coming from different states that would allow research to be conducted more efficiently. Differences across states in their policies can provide clear evidence of the impact of those policies, making datasets covering multiple states much more valuable than a single state's data. In addition, given the mobility of the population across state boundaries, the full impact of one state's policies may not be seen if the analysis is restricted to data from that state – and a better understanding of the factors driving interstate mobility would itself be an important contributor to designing optimal state-level policies. Finally, a federal system accessible to researchers from around the country would expand the potential pool of researchers working on any given problem.

Looking Backward but Moving Forward: Honoring the Sacred and Asserting the Sovereign in Indigenous Evaluation

Waapalaneexkweew (Nicole R. Bowman-Farrell, Mohican/Lunaape)[1,2]

Abstract

Culturally responsive evaluation and culturally responsive Indigenous evaluation (CRIE) within the broader field of evaluation are not often included in Western literature nor are they known or used by the majority of mainstream evaluators. In order to address this literature and practice gap, this article offers an overview and a broader origin story of CRIE prior to colonial or European contact in the United States and gives an overview of the historical, theoretical, and practical foundations for conducting CRIE in a contemporary evaluation context. Examples of evidence-based models, theories, and resources are provided to connect CRIE to Western evaluation designs and provide concrete strategies for the field of evaluation going forward. The article concludes with systemic and policy evaluation considerations as agencies from federal (i.e., United States), tribal, and international governments and partners from private or nonprofit sectors collaborate to carry out Indigenous evaluations in the future. Collectively this multijurisdictional, culturally responsive, and community-centered CRIE approach gives evaluators a new way to move forward.

Introduction

Dr. Ernest House (1999, 2015) provided three suppositions in his American Evaluation Association (AEA) keynote outlining his scholarship on racial bias and identity and several key components that

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influence racial framing, specifically a White racial and systemic frame (Feagin, 2013), within the field of evaluation (House, 2017):

- *Supposition #1: If a society sees itself as democratic, and in many ways is democratic, yet is racist and does not recognize the extent or nature of the racism, that society will promulgate programs and policies that purport to help the affected minorities, but many programs and policies will damage the minorities significantly.*
- *Supposition #2: Racism in America is not a simple vestige of the past. Rather, American racism is created and recreated in the present. Several identifiable social entities, mechanisms, processes, and structures currently generate racist beliefs and behaviors.*
- *Supposition #3: Evaluation plays an important role in these processes. Evaluation is not a cause of the racism but for racist processes to have their effects, the evaluation function must be distorted, co-opted, or corrupted.*

Given my education and experience as an evaluator, and my own Indigenous cultural identity (Mohican and Lunaape-Munsee) located within North America, these suppositions resonate deeply. In this article, I seek to help my fellow evaluators recognize the extent and nature of the racism (Supposition #1) that affects Indigenous people in North America. I examine both its historic roots and the ways in which this racism is created and recreated in the present (Supposition #2), particularly in terms of Tribal nation exclusion by governance and sovereignty subject matter experts in the literature (Schoenfeld & Jordan, 2017). This basic understanding of historical and contemporary context vis-à-vis Indigenous populations and Tribal Nations is an essential grounding for any evaluators' knowledge, competencies, and skills when conducting evaluations with Indigenous participants.

This article also seeks to outline methods for recognizing and combatting the ways in which the evaluation function is distorted, co-opted, and corrupted (Supposition #3) in the Indigenous context when non-Tribal or unexpected evaluators lead and conduct evaluations with Tribal Nations and participants. I hope to contribute toward building both cultural competencies and scientific skills of my evaluation colleagues. Given the increasing awareness that scholars in our field exhibit toward social justice as it pertains to evaluation, we need to critically examine whether intended responsive and Western evaluations actually practice what we now preach. As evaluators, we must discern our level of accountability for distorting, co-opting, corrupting, or racially biasing the evaluation process in Indigenous contexts. If we do not have awareness, education, or understanding of this history, then we cannot function at our highest level as technically competent and culturally responsive evaluators—and we may even be causing harm, as House asserts in his 2015 keynote. To address this content gap and perpetuation of harm due to lack of cultural and technical knowledge and skills, this article shares Indigenous contributions and culturally responsive strategies that evaluators can bring to their future work with Indigenous populations. The discussion primarily focuses on the context of Indigenous peoples in the current United States of America, but models and resources from other Indigenous contexts are also shared with an explicit focus on Indigenous evaluation (IE) program or project evaluation strategies.

I use the term *Indigenous* to describe myself and other members of communities of the Original Inhabitants of the land, in this instance, Takwáx Múnáhan (Turtle Island, aka North America). As Smith (2012) notes, the term *Indigenous* has historic resonance as "'Indigenous peoples' is a 1970s term from the American Indian Movement to internationalize experiences of Indigenous peoples around Mother Earth. It represents our collective voices to finish the unfinished business of decolonization" (p. 7). Where I am able and as appropriate, I use my Lunaape (Delaware) or Moh-he-con-nuk (Mohican) language, traditional knowledge, and terms within this article. This conscious act of literary decolonization honors my Lunaape, Mohican, and Indigenous ancestors and relatives who are voiceless and/or who can only be with me in spirit, fulfilling the responsibility I have been given as Waapalaneexkweew (Flying Eagle Woman, accompanied by the Four Eagles) to

promote the teachings that accompany my Indigenous spirit name. My academic and professional work is grounded in community, language, and culture because it respects the past, acknowledges the present, and affirms my commitment to the future seven generations.[1]

Using the traditional "four doors" from the Lunaape/Mohican seven directions cultural teachings (used during Indigenous longhouse teachings, in sweat lodges, or other ceremonies), I have organized this article's content around four themes or doors to demonstrate the use of traditional knowledge and its application to contemporary practice:

1. *Ktanaxkihlaak (Kah-taw-nah-x-kee-lock)—Eastern Door: Origin Story—Situating Evaluation Within a Broader Historical Context*. This section situates IE within a broader historical context and offers an Indigenous perspective to the historic narrative that is often missing in our academic literature or professional development and higher education curricula.
2. *Shaawaneewang (Shaw-one-neh-wung)—Southern Door: Political, Legal, and Institutionalized Postcolonial Impacts*. This section explains postcolonial contact impacts, showing how interactions from early treaties to contemporary policy shaped colonial/United States and Tribal Nation government relations and how these political/legal components are often ignored but case-law findings/judgments are shaping policies and therefore should be considered in evaluation profession and practice.
3. *Wsihkaang (wh-see-kong)—Western Door: Perseverance and Unknown Potentiality*. This section shares the untapped potential available to persevere and rebuild colonial and tribal relations. Examples of Indigenous theories, methods, and evidence-based models demonstrate how evaluation practice can change and how IE is connected to or can modify many of the Western models and strategies that evaluators use.
4. *Loowaneewang (Low-one-neh-wung)—Northern Door: Elder Wisdom to Guide New Beginnings*. This section brings us full circle, offering guidance for our professional evaluation practice and broadly to the field of evaluation.

This article offers a broad framing of evaluation theories, methods, and frameworks that are culturally responsive and have worked well within Indigenous contexts. This broad framing, with examples, is situated within an historical context so readers understand how culturally responsive Indigenous evaluation (CRIE) was influenced and is a needed response to other activities, methods, theories, and lived experiences that have not worked well for Indigenous communities and Tribal Nations. So, the article should be considered a resource for understanding evaluation that has been used within Indigenous contexts (primarily within the Indigenous north of the United States of America) that have helped, caused harm, or leaves gaps still that the field of evaluation can consider. A deeper dive into an emerging evidence-based and applied culturally responsive evaluation (CRE) model can be further understood via Bowman (2016, 2017); Bowman, Dodge-Francis, and Tyndall (2015); and Waapalaneexkweew (Nicole Bowman, Mohican/Lunaape) and Dodge-Francis (2018). The article concludes with an overview of methods, theories, frameworks, and tools that can be used for CRIE when working with Indigenous populations and Tribal Nations. See also Appendix C of this article for additional Tribal and Indigenous Institutional Review Board (IRB) and journal articles and resources.

Ktanaxkihlaak (Kah-taw-nah-x-kee-lock)—Eastern Door: Origin Story—Situating Evaluation Within a Broader Historical Context

Lunaape Eastern Door teachings (the Original "red" people indigenous to this land are awake with the rising of the sun and are born new like in springtime in this Eastern direction). This section presents an Indigenous version of the origin story of "democracy" in the United States, helping us recognize the

extent and nature of the racism underpinning interactions between Indigenous peoples and their colonizers that continues to this day, and how that shared history shapes contemporary evaluation.

The history of Indigenous populations is rarely taught in classrooms, universities, or professional evaluation curricula. Newcomb (2008), writing from an Indigenous perspective, characterizes the standard, Western historical narrative as the conqueror model (p. 23–36), a narrative framework of conquest, ownership, and discovery based in a Western, Christian story that justifies domination of Indigenous people who are viewed as less than human. Under this narrative, historical texts are premised on the idea that colonials and Christians from Europe "discovered" a "new world," a world they viewed as uninhabited by humans. Indigenous people were seen as savages rather than human because they were pagan rather than Christian, per the Doctrine of Discovery (Alexander VI, 1493). This Western narrative continues to marginalize and distort the experiences of Indigenous people to this day. Examples include contemporary, romanticized stories of the first Thanksgiving where everyone got along, and the mistaken notion that Indigenous people should somehow "get over" the harm caused by colonization given the so-called benefits to society provided by the industrialization of the United States via Manifest Destiny.

The historic narrative is different when viewed through an Indigenous perspective. The pre- and post-contact map below clearly illustrates one aspect of the impact of colonial contact and the theft of economic, political, and natural resources accomplished through forced removal, assimilation, termination, and allotment policies created and enforced by the U.S. government. Additionally, these policies of assimilation and forced removal resulted in death, loss of culture and language, and undermined the political, economic, and social power that Tribes had under Treaty Law (early contact) and constitutional law (contemporary times; Figure 1; see also Appendix A).

These pre- and post-colonial contact maps teach us about the impacts of colonialism upon Indigenous people and their relationship to the land and land ownership. It is difficult, but important, to acknowledge the cruelty and brutality with which this land grab was enacted: scalping, raping, torturing, hanging, poisoning, freezing, and killing Indigenous people were preliminary methods (Brown, 1970; Deloria, 1985; Ehle, 1988; Furse & Miller, 2008; Lyons, Mohawk, Inouye, & Mathhiessen, 1998; Stannard, 1992; Wilson, 1998), while the destruction of culture, language, and family and tribal structures through forced assimilation and boarding schools were more "civilized" tactics used to "kill the Indian and save the man" ("Capt. Richard H. Pratt on the Education of Native Americans," n.d.) while taking his land. Destruction of ceremonies and significance of the place of origin by forced removal not only "kills the Indian" but also imperils the men, women, and children of current or future generations because the culture, language, and traditional knowledge needed for healthy survival have been decimated.

Indigenous intergenerational trauma is a response to the past and present unacknowledged and unaddressed effects of colonial and contemporary contact with non-Indigenous people, organizations, and systems. A large body of research supports this assertion; postcolonial trauma may be the foundational reason for disproportionately high levels of suicide, lateral or other violence, substance abuse, and incarceration rates for Indigenous populations (Brave Heart & DeBruyn, 1998; Brown-Rice, 2013; Chandler, Lalonde, Sokol, & Hallett, 2003; d'Errico, 2016; Evans-Campbell, 2008; Myhra, 2011). Understanding historical, cultural, and community content can help evaluators to design appropriate and responsive evaluation studies.

Thus, evaluators who approach an Indigenous community should not expect to impose a model, evaluation design, instruments, or tools upon the members of that community. Vast differences between Western and Indigenous cultures are highlighted in the context of evaluation. For example, evaluations have privileged written and published evidence over oral history and traditional knowledge passed down through language, ceremonies, and songs. As well, evaluations have prioritized Western concepts of ownership such as data, knowledge, and intellectual property of individuals over acting as caretakers of knowledge, community, or family over individualism, and relational interactions and responsibilities to all things in nature, the spirit world, and each other. Similarly,
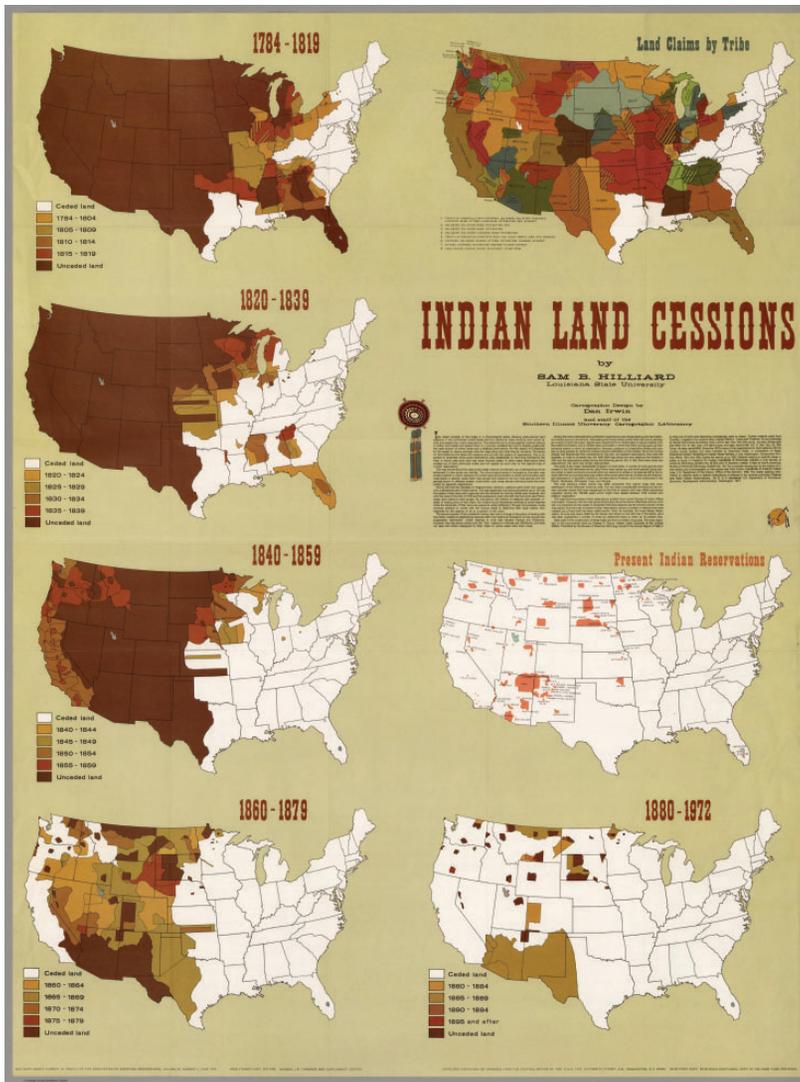
Figure 1. Indian Land Cessions. Reproduced from Hilliard and Irwin (1972; https://creativecommons.org/licenses/by-nc-sa/3.0/).

assuming that outside evaluators are the only "subject matter experts" (SMEs); reporting findings only in formats and venues that are accessible to evaluators, academics, or study funders; and having Western notions of extracting and "owning" the data are all examples of how colonialist practices are replicated in the present-day evaluation.

Without Indigenous voices in the academic discourse, the field of evaluation either replicates incorrect assumptions about Indigenous communities or operates ineffectively without the proper skills, content knowledge, or a contextualized understanding learned through experience. Listening to these voices and working to understand the history and effects of colonialism on Indigenous populations from the past can serve to ensure that evaluation practice does not replicate these destructive historic patterns and practices in the present. Traditional cultural practices and knowledge persist to this day in different forms, held by elders, traditional community teachers, and those

to whom they entrust this wisdom. These traditions, where appropriate and available for public sharing, should be incorporated into our evaluation knowledge, competencies, and skills as technical and culturally responsive evaluators.

Inclusion of Indigenous traditions is a start, but I believe our profession is called to be proactive—to change mind-sets, behaviors, and resources to reach a critical mass for addressing institutionalized and systemic change. As a profession, we need to critically question the structures and systems that perpetuate or legitimize implicit or explicit racism. Using a strengths-based approach, the evaluation field can start by including Indigenous SMEs on key initiatives and make access and resources more available, so that truly collaborative studies with Indigenous scholars can contribute to the "evidence-based" policies, programming, committees, and practice. Together, we can be more purposeful, active, and accountable with these inputs, so that the outputs, outcomes, and studies produce new knowledge from which Indigenous communities, our profession, and academia can all benefit.

Shaawaneewang (Shaw-one-neh-wung)—Southern Door: Political, Legal, and Institutionalized Postcolonial Impacts

> Lunaape Southern Door teachings (the people are growing stronger and continue learning under the yellow splendor of the sun). The Lunaape prophesized the coming of the shëwanàkw (people from the salty water, long knife, Colonists). Lunaape and Mohican creation stories explained that some Indigenous people would stay and fight while others would move or be removed to other places on Turtle Island. After learning, struggling, and growing, the people would then come back together to learn from one another and traditional teachings to survive in a contemporary world. The Southern door explains why postcolonial contact political and legal interactions must be considered when designing evaluations with Indigenous communities.

House and Howe (2000) stress the importance of understanding context when conducting deliberative democratic evaluations, "Evaluation always exists within some authority structure, some particular social system. It is not simply a logic or a methodology free of time and space, and it is certainly not free of values or interests. Rather evaluation practices are firmly embedded in and inextricably tied to particular social and institutional structures and practices" (p. 3). It is critical for professional evaluators to understand the origins of the "authority structure" in which we practice evaluation with Indigenous people. The philosophies justifying the means by which resources, political power, and governance were taken from Indigenous people from the early 1400s to the present have shaped our evaluation practice today. The legal and political components unique to sovereign tribal governments, which also extend to Indigenous programs and community members, are little known and rarely considered when conducing evaluation with Indigenous populations.

From the past to the present, Indigenous people and sovereign tribal governments have been marginalized and excluded at best. What are the roots of this historic and continuing marginalization? The earliest "relationship" between Indigenous people and communities was enshrined in Christian and European policies related to the Catholic Church's Doctrine of Discovery (Alexander VI, 1493; Newcomb, 1992). This religious and political doctrine supported Spain's right to lands that Columbus discovered in 1492, stating "that any land not inhabited by Christians was available to be 'discovered,' claimed, and exploited by Christian rulers" (Newcomb, 1992) and declared that "the Catholic faith and the Christian religion be exalted and be everywhere increased and spread, that the health of souls be cared for and that barbarous nations [Indigenous people] be overthrown and brought to the faith itself" (Alexander VI, 1493, para. 1). This doctrine was the justification for Europe's conquest of Turtle Island (North America) and was the legal foundation used for the United States' philosophy of westward expansion. It also underpins contemporary rationales for legal and political relationships with Tribes through treaties and the U.S. Constitution.

When agreements are created under the assumptions of this doctrine, that is, that one partner to the agreement is intrinsically less worthy, they are essentially made to be broken. During the Treaty era, tribes and the colonial government entered into 384 treaties (Kappler, 1904). The Oklahoma State University Library's searchable database (Oklahoma State University Library, n.d.) identifies 146 education-related treaties; 17 of these are related to my tribal affiliations under various names: Lunaape, Delaware, New York Indians, and Stockbridge-Munsee. To date, *none* of the treaties have been honored or upheld by the U.S. government.

Why is treaty law important? Because treaties are the "supreme law of the land" and form the basis for contemporary U.S./tribal government relationships on a legal, policy, and governance level. Treaty law serves as the foundation to contemporary constitutional law between Tribal Nations and the United States. Wilkinson and Miklas (1988) summarize three principles regarding the legal relationship between the colonial U.S. government and Tribal Nations, found in provisions of the U.S. Constitution and upheld within Supreme Court rulings:

- *Territorial sovereignty*. Tribal authority on Indian land is organic and is not granted by the states in which Indian lands are located.
- *Plenary power doctrine*. Congress has ultimate authority regarding matters affecting the Indian Tribes. Federal courts give greater deference to Congress on Indian matters than on other subjects.
- *Trust relationship*. The federal government has a "duty to protect" the tribes, implying the necessary legislative and executive authority to fulfill that duty.

Unfortunately, despite these foundational understandings concerning tribal sovereignty, three legal precedents referred to as the Marshal Trilogy (*Johnson v. McIntosh*, 1823; *Cherokee Nation v. Georgia*, 1831; and *Worchester v. Georgia*, 1832) continue to be used to support Supreme Court decisions (Newcomb, 1992) regarding Tribal Nations. These legal foundations and standards used against Tribal Nations continue to give the U.S. government (i.e., the colonists) absolute rights, rendering Indigenous human rights nonexistent, leaving Indigenous communities unacknowledged and with little to no legal recourse.[2]

Ultimately, however, unlike any other group in the United States, *only Indigenous people and tribal governments have the legal and political distinction of sovereignty under the U.S. Constitution*. Tribes have the inherent authority to govern themselves. Through treaties and the constitution, the federal government defines Tribal Nations as "domestic dependent nations" and has established laws attempting to clarify the relationship between the federal, state, and tribal governments. Although the legal foundations of the sovereign status of Indigenous people in the United States are clear, Western perceptions and institutional acceptance of Indigenous legal rights have varied widely over time. Generally, from the inception of the United States until 1871, tribes were recognized as sovereign entities with whom treaties should be negotiated (even if those treaties were regularly broken). However, from 1887 through 1968, the main thrust of the government's political and legal interaction with Tribes was to disregard their sovereign status, allot land on an individual basis, and assimilate Indigenous people into White political, social, cultural, and economic systems as much as possible. Since 1968, in conjunction with the civil rights movement, tribal governments and Indigenous people have worked hard to restore their nationhood, their communities, their families, and their lives. The importance of Indigenous sovereignty in the United States is further reinforced by the United Nations (UN) Declaration of the Rights of Indigenous Peoples (2008), which was finally signed by the United States in 2016, and the newly created American Declaration of the Rights of Indigenous People (Organization of American States, 2016). Understanding and incorporating both the legal and political aspects of sovereign Tribal Nations along with culture,

language, and community context are *all* integral to designing and carrying out rigorous and responsive evaluation studies.

Sadly, political manifestations of the conqueror model (Newcomb, 2008, pp. 23–36) are alive and well. Left unchallenged, the conqueror model supports "a state of domination which correlates with the original founding of the USA as the American empire" (Newcomb, 2008, p. 23). For example, despite their sovereign status under treaties with the United States, the Standing Rock people and tribal government have been unable to halt construction of the Dakota Access Pipeline (DAPL) on sovereign tribal lands, which are also environmentally sensitive sacred burial and cultural grounds for the Sioux Nation. Since the DAPL protest (NoDAPL) began in January 2016 (National Public Radio, 2017), multiple federal court cases have ruled against the Standing Rock Sioux Tribe and Indigenous people, allowing incarceration of and harm to them and their non-Indigenous supporters (National Public Radio, 2017) to continue. At the hands of the state and federal government, many people were physically and psychologically harmed, tribal cultural artifacts were destroyed, and sacred sites were burned. Even when conquered and forcibly removed to reservation lands, sovereign Indigenous governments are denied sovereignty when it conflicts with what colonists and modern-day corporate or nontribal government partners want.

The field of evaluation is not exempt from these political manifestations of colonial might against tribal sovereignty. Colonialism continues in terms of appropriation of Indigenous intellectual property as well. A new U.S. federal rule (Federal policy for the protection of human subjects, 82 FR 7261, 2017) exempts oral history from IRB review (Flaherty, 2017) and has dire implications for Indigenous populations and tribal governments. The final document defines research as, "A systematic investigation, including research development, testing, and *evaluation* designed to develop or contribute to generalizable knowledge. Activities that meet this federal definition constitute research for purposes of this policy, whether or not they are conducted or supported under a program that is considered research for other purposes" (Federal policy for the protection of human subjects, 82 FR 7261, 2017). This decision was reached without any legal or formal consultation with tribal governments; the representation of Indigenous populations regarding this decision was low or nonexistent, as with most the scientific activities of the federal government. Other provisions of the FR that further erode the value of Indigenous voices state that the following activities are not "deemed to be research": "(1) scholarly and journalistic activities (e.g., *oral history*, journalism, biography, literary criticism, legal research, and historical scholarship) including the collection and use of information, that focus directly on the specific individuals about whom the information is collected" (Federal policy for the protection of human subjects, 82 FR 7261, 2017, p. 7261; emphasis added). Indigenous people were not "seen" or considered human under the Doctrine of Discovery and Christianity in the 1400s; this lack of "seeing" is exactly what continues to happen over five centuries later.

Recognition of the legal implications of Indigenous sovereignty must inform our work with Indigenous communities. It is not simply culturally responsive, it is a legal and moral imperative that we move beyond the "beads and feathers" linguistic and cultural aspects of evaluation to work with tribal governments and communities as sovereign partners. For example, when tribal and nontribal partners work together, they should, whenever possible, obtain permission from a tribal IRB (Bowman & Dodge-Francis 2018; Bowman, Dodge-Francis, & Tyndall, 2015; Harding et al., 2012; National Congress of American Indians, 2017). The tribal IRB may be administered by the formal tribal government, approved through a traditional governance model of elders and chiefs, situated at a tribal college/university or tribal clinic, or a combination of these. Fulfilling the technical and scientific requirements for human subjects' protection thus takes on unique meaning, beyond culture, indicating respect for and recognition of the distinct legal/political sovereign status of tribal governments when creating and conducting evaluations. Instances where Tribes asserted their sovereignty in partnership with others have resulted in many positive policy and program

changes in education, economic development, health, justice, and human services (Bowman, 2015; Champagne, 1997; Cornell & Kalt, 2010; National Congress of American Indians, n.d.; see Appendix C for additional information on tribal IRBs).

In the preface to his reissued master work *Custer Died for Your Sins*, Deloria (1988) lamented that in the two decades since the book's original publication in the 1960s, despite all best efforts, Indigenous people in the United States still did not have a "clear and workable definition of how the Indians and the Federal government should deal with each other" (p. viii). This holds true today, nearly 30 years later. Without a collective effort, Indigenous people will continue to remain invisible, excluded, and suffer continued trauma and impacts based on the history. Contemporary policy and practice by the academic and evaluation community has an opportunity to further increase the ways we can work with (not on) Indigenous people and tribal governments. The following section shares ways in which the evaluation community can contribute to the systemic and sustainable change needed to shift this inequitable balance of political power.

Wsihkaang (wh-see-kong)—Western Door: Perseverance and Unknown Potentiality

Lunaape Western Door teachings (where the sun sets as adults, the people are in the autumn season of their lives). The Western door shares the potential to persevere and establish new and better colonial and Tribal relations. This section presents Indigenous theories, methods, and frameworks that can inform evaluators' practice. The Western door teaches evaluators that if we go in a good way, purposefully into the unknown direction of the West, and are of good mind, heart, and spirit, the potential for new learning and innovative ways of doing our work is limitless.

In this section, I offer Indigenous perspectives, theories, and methods—tools that enable evaluators to do work differently as collaborators with tribal populations and sovereign tribal governments. The Indigenous framing of evaluation recognizes the evaluation literature and is related to some of the more recent Western and culturally responsive evaluation (CRE) frameworks published, especially within the last decade. This section is not intended as an exhaustive explanation of any one IE model but rather aims to provide background and an overview of Indigenous theories, methods, and models available that align well with some Western models for culturally responsive and IE.

IE was virtually absent in the early broader evaluation literature or "creation narrative" until the champions of transformative, social justice, and CRE arrived and first published during the civil rights era (Center for Culturally Responsive Evaluation and Assessment [CREA], 2016). Social justice movements and culturally responsive and IE have strong foundations (Bowman et al., 2015; Cram, 2015, 2016; Cram & Mertens, 2015, 2016; Hood, 2001; Hood & Hopson, 2008; Hood, Hopson & Frierson, 2005, 2015; Hopson, Kirkhart, & Bledsoe, 2012; Kirkhart, 2005, 2010; LaFrance & Nichols, 2010; Mertens, Cram, & Chilisa, 2013; Smith, 2012). In the 1970s, the culturally responsive approach influenced evaluation (Stake, 1972). Culturally responsive pedagogy and curriculum efforts prevalent in the 1980s and 1990s (CREA, 2016) helped to decentralize evaluation. The community context and cultural values, practices, and experiences of participants became the drive of the evaluation. Instead of the funding agency being the only or primary driver to evaluation, CRE allowed a more responsive evaluation model where social justice and evaluation meet for getting closer to understanding and transforming the root causes of community issues, gaps, and long-standing problems of health, social, educational, or economic factors participants of programming faced. Building off of the responsive evaluation design (Stake, 1972), CRE deepened evaluation to locally situate and study issues of importance to community members and stakeholders who are most impacted by the or those who have the most at stake in the

evaluation results, including underrepresented and vulnerable populations (Hood, 1999, 2001; Hood, Hopson, & Frierson, 2005, 2015).

CRE continues to transform the contemporary evaluation field and profession by contributing to and diversifying the mostly monolithic literature; challenging privilege to expand cultural and technical scientific competencies, capacities, and skills that the evaluation profession desperately needs; and creating innovative, empowered, and self-governing spaces where culture, context, and community weave together to ground evaluation profession and practice. CRE should not be narrowly defined as a response to the cultural, theoretical, philosophical, methodological, professional, and organizational incongruence that underserved and underrepresented evaluators and communities continually experience within colonialized and privileged contexts and paradigms. More purposeful and empowering, CRE is a welcoming space where evaluators and evaluations honor the strengths, respect the diversity, and authentically include, engage, and empower evaluators and the communities they are working with (not "on") in the evaluative process, so they can be their own social justice and transformative leaders for creating and sustaining local change.

IE is related to and a partner of CRE; one difference is that Tribal Nations and American Indian populations (in the United States and other places around the world) are the only racial/ethnic group with dual citizenship and government sovereignty that is equal to the United States or other international governments from a political and legal standpoint. That will be discussed later in this article. Origins of IE are found in contemporary evaluation publications as early as the 1960s, with roots in public health and public policy administration (Hutchinson, 1960; McQueen, Lewis, & Schneider, 1960). IE has grown through the decades, especially in countries outside of the United States (Bowman, 2006, 2017; Chouinard & Cousins, 2007; Denzin, Lincoln, & Smith, 2012; Kawakami, Aton, Cram, Lai, & Porima, 2007; LaFrance & Nichols, 2010; Mertens et al., 2013; Smith, 2006, 2012; Wehipeihana, Bailey, Davidson, & McKegg, 2014). Within the United States, Indigenous evaluators were less prominent, but their influence has been felt and is growing over time (American Indian Higher Education Consortium, 2012; Bowman et al., 2015; Kawakami et al., 2007; LaFrance & Nichols, 2010; Robertson, Jorgensen, & Garrow, 2004; Yellow Bird, Bowman, Steichen, & Brandon, 2007).

In their foundational study, LaFrance and Nichols (2010) state that Indigenous knowledge creation is critical to IE and identify four core tenets of IE: (1) being people of a place, (2) recognizing our gifts, (3) honoring family and community, and (4) respecting sovereignty. These core tenets honor and align with the key issues and concerns identified as critical, historic problems for Indigenous people in the Eastern and Southern door sections of this article. Building upon the foundation of CRE and the original IE definition, I further proposed a working definition of a CRIE model:[3]

> An Indigenous Self-Determination Evaluation Model respects, recognizes, and values the inherent worth of Indian culture; is responsive to the communities' needs as voiced by all members of the tribal community; builds evaluation designs and processes around Indian assets and resources; and literally and figuratively employs Indians in every part of the process (program, policy, implementation, evaluation) to heal, strengthen, and preserve Indigenous societies for the next 7 generations. (Bowman, 2005, p. 8)

CRIE is about working "with" the community and not on them, an approach which has stood the test of time and is a traditional construct foundational to the CRIE model (Bowman, 2005, 2017). The process and preparation for working with Indigenous communities is as important as the theories and methods that underpin the work of the evaluator. Since 2005, this initial CRIE conceptual model has been implemented, tested, and modified through national and international IE studies (Bowman, 2005, 2006, 2007, 2015, 2017; Bowman et al., 2015; Bowman & Reinhardt, 2014, 2015; Garasky et al., 2016; O'Connor et al., 2015). Created from the Stockbridge-Munsee/Lunaape
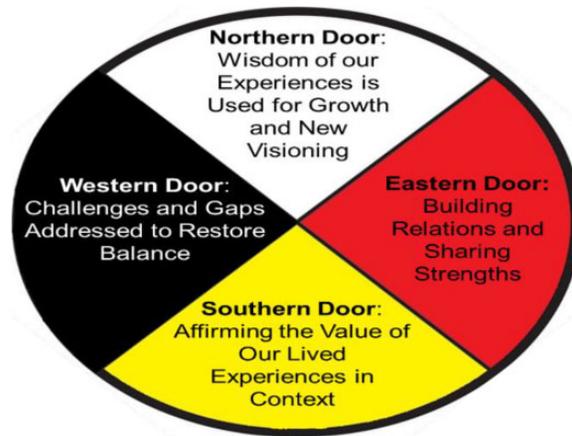
Figure 2. Culturally responsive indigenous evaluation model (Stockbridge-Munsee/Lunaape Framing) by Bowman (2006, 2016) and Bowman and Dodge-Francis (2018).

traditional teachings, this CRIE evaluation model was developed using the Stockbridge-Munsee/ Lunaape's medicine wheel (SML CRIE). Evaluation is situated around a four-part framework that is about process, content, context, and community. The model is not flat but multidimensional, incorporating physical, mental, spiritual, and emotional aspects of evaluation. The SML CRIE model allows for adaptations for community context/building, cultural responsiveness/traditional teachings for solving issues, documenting strengths as well as needs or challenges, and flexibility to meet local and funder requirements for evidence-based evaluations. The SML CRIE evaluation model was conceptualized by Bowman (2005) and for over 13 years continues to be modified and updated based on applications, new culture and language teachings, and as Indigenous elders, academics, and community members guide the SML CRIE creator's model (Bowman, 2006, 2016, 2018). Figure 2 illustrates the latest model.

Other important Indigenous and Western theories and methods that can be used in the IE context include:

- *Community-Based Participatory Research* (CBPR): "CBPR is an orientation to research that focuses on relationships between academic and community partners, with principles of co-learning, mutual benefit, and long-term commitment and incorporates community theories, participation, and practices into the research efforts" (Wallerstein & Duran, 2006, p. 312).
- *Tribally Driven Participatory Research* (TDPR): TDPR (Collaborative Research Center for American Indian Health, 2015; Mackety, 2012; Mariella, Brown, Carter, & Verri, 2009; Martinez & Timeche, 2016; National Congress of the American Indians Policy Research Center & MSU Center for Native Health Partnerships, 2012) is a natural pathway from CBPR to a more culturally responsive and legally/politically accurate way to conduct research or evaluation. Not only is it community based but the unique aspects of tribal governance by sovereign Indigenous nations addresses the jurisdictional, treaty, and constitutional rights of tribes to govern themselves and any research or evaluation that pertains to them. In short, TDPR moves community-based research or evaluation from a passive to active stance in that research is "Tribally *driven*" versus Tribally based (Letendre & Caine, 2004).
- *Tribal Critical Theory* (TCT): TCT builds on Critical Race Theory (CRT) frameworks of examining how political, legal, and other power relationships influence, reinforce, and sustain systemic and institutional racism and inequities (Delgado, 1989; Delgado & Stefancic, 2012;

Yosso, 2005). It deepens CRT theory by applying it to the distinct legal, political, historical, and cultural components that are uniquely tied to Indigenous people and tribal governments. Brayboy (2005) offers nine tenets that summarize TCT: colonization is endemic to society; U.S. policies toward Indigenous people are rooted in imperialism, White supremacy, and desire for material gain; Indigenous identity is both political and racial; Indigenous people have rights to tribal sovereignty, autonomy, self-determination, and self-identification; culture, knowledge, and power have different meanings under Indigenous lenses; government and education policies for Indigenous people are linked to the problematic goal of assimilation; cultural traditions and philosophies are central to the lived realities, differences, and adaptability of Indigenous people; theories and stories are not separate but are legitimate sources of data and ways of being; and theory and practice are connected in deep and explicit ways so that scholars must work toward social change.

- *Decolonization and Indigenous Theory and Methods:* Smith (2012) summarizes these as "concerned not so much with the actual technique of selecting a method but much more with the context in which research problems are conceptualized and designed, and with the implications of research for its participants and their communities" (p. ix). Decolonized and Indigenous methods call for replacing colonial methods and philosophies with original Indigenous teachings, culture, and language that have meaning, empowering effects, and positive impacts, thus "re-writing and re-righting" our history (Smith, 2012, p. 7). Yellow Bird (2007) and colleagues (Yellow Bird et al., 2007; Waziyatawin & Yellow Bird, 2005) also recognize the culture and the context including the social, political, and economic power that colonizers want to maintain or expand and how that historically and contemporarily impacts Indigenous people's lives. To combat the devastating impacts of colonization, one must decolonize the mind first by questioning the legitimacy of the colonizer and not accepting a role as a colonized person. This is achieved not only through critical thinking but also being grounded in Indigenous culture, community, and language (one's own first, and then others).

- *The Tri-Lateral Model* (TLM): Conceptually developed first by Reinhardt and Maday (2006), the TLM was used in an educational and policy context to frame, test, and modify the design, inclusion, and implementation of legal/political and cultural/community context components of studies. The TLM has also been used in research and evaluation studies (Bowman 2016, 2017; Garasky et al., 2016). Research, evaluation, and policy studies that include Indigenous populations span sectors and disciplines, requiring a systems road map for collaborative initiatives (Bowman, 2007; Bowman & Reinhardt, 2014, 2015, & 2016; Bowman et al., 2015; Garasky et al., 2016; O'Connor et al., 2015). When multiple governments (tribal, federal, and state) work together to develop and implement American Indian evaluation, research, and policy studies, using a tri-lateral governance framework provides a systems structure for these governments and their associated agencies or departments to work collaboratively to carry out studies with Indigenous people.

- *Declaration on the Rights of Indigenous Peoples* (UNDRIP): UNDRIP (2008) is a framing of Indigenous rights that, like other UN program focus areas (i.e., UN Women, EvalGender, etc.), could be developed into an evaluation model with handbooks, indicators, and methods for evaluating equality. The UNDRIP affirms that, "Indigenous peoples are equal to all other peoples, while recognizing the right of all peoples to be different, and to be respected as such" (p. 1) and includes 46 specific international articles that affirm the unique, historic, and legal human, governance, and collective rights of Indigenous peoples. Echo-Hawk (2013) provided a follow-up to UNDRIP and a call for its implementation, particularly in the United States and other countries with large Indigenous populations that did not affirm this declaration in 2007. The *American Declaration on the Rights of Indigenous Peoples* was developed by the

Organization of American States (2016) as a regional and comprehensive human rights instrument in support of the UNDRIP. Many Indigenous activists, scholars, and governments are using these international declarations as springboards to advocate for and create change and as the foundation to building case studies and empirical evidence around emerging and best practices in policy, research, and evaluation.

On a personal level, the path toward IE can begin by recognizing all voices and seeing the Indigenous people right in our midst. The Indigenous story should be told in the United States as it has been in other countries (Commonwealth of Australia, 1997; Kiernan, 2002; Meierhenrich, 2014; Moses, 2000; Niezen, 2013; Reyher & Singh, 2010). In *Democratic evaluation and democracy: Exploring the reality* (Podems, 2017), the editor and contributors explore participants' experiences with evaluation and how evaluation can contribute to or serve as a social justice lever for democracy—or not. Situated mostly outside of the United States, Podems and the contributors provide critical information about culture, context, and the lived experiences of communities and people who may or may not be the fortunate recipients of democracy in action in their lives. Evaluation, when framed with a social justice lens, offers this as a better way to create a just and equitable society.

How can we in the evaluation community incorporate this narrative into our practice? As evaluators within the AEA, we can push to elevate Indigenous voices and work to clarify, discuss openly, measure, and change impacts for improving our work with Indigenous communities and tribal governments. Examples of ways we can support this good work include past AEA initiatives such as the *Graduate Education Diversity Internship Program* (http://www.eval.org/gedi); the *Cultural Reading of the AEA Program Evaluation Standards Task Force* (http://www.eval.org/p/cm/ld/fid=74); the *AEA Evaluation Policy Task Force* (http://www.eval.org/p/cm/ld/fid=129); the *Minority Serving Institute Fellowship* (http://www.eval.org/p/cm/ld/fid=230); *EvalPartners Global Initiative* (http://evalpartners.org/); and the *Cultural Competence* (CC) *in Evaluation Statement* (http://www.eval.org/ccstatement). Other recent AEA diversity activities include the 2016–2017 race and class dialog discussions (http://www.eval.org/page/racedialogues), national discussions to raise awareness and promote positive actions to address the racial, ethnic, and class disparities seen within the United States. A new Presidential Task Force on Member Engagement, Diversity, and Leadership Development (2017–present) is charged with reconstructing AEA institutional memory; reviewing and evaluating the current status of diversity initiatives, commitments, and plans (including the public statement on CC); and assessing newly proposed organizational, program, and individual indicators designed to keep engagement, diversity, and leadership development on the agenda of the AEA board. Finally, *New Directions in Evaluation* and the *American Journal of Evaluation* are publishing articles regarding race and diversity.

Collectively, Indigenous people and organizations participated in most of these AEA activities at an individual level and occasionally at a program or an organizational level. Unfortunately, participation has been very low—the lowest among all racial/ethnic groups. There have been no formal and sustained partnerships and few sponsored initiatives between AEA and tribal governments, tribal nonprofits, or tribal colleges and universities on a systemic scale for much of the last three decades.[4] The good news is that since 2016, we have seen new initiatives promoting higher levels of individual or organizational Indigenous participation with AEA. While AEA is working to reach out to Indigenous partners, it is clear that more sustained efforts, a formal strategic direction, and equitable resources should be dedicated to this most underrepresented population. Together, we can narrow gaps by collaborating on research and evaluation studies so more Indigenous populations are included. We can meet needs in a more culturally responsive way by developing the technical evaluation skills and competencies for IE through participation in trainings, courses, and mentoring on evaluation projects. And we can build and strengthen the capacities, infrastructure, and resource

supports through grant writing, targeted budget appropriations, and inclusion of Indigenous voices or tribal governments on boards or in key committee participation. Many of these strategies, if implemented long term, would provide for a more targeted organizational and strategic systems approach to engaging and including Indigenous populations, organizations, and tribal governments.

How as a profession and association do we stop systemically reinforcing and recreating the racism that exists within evaluation and government policies and programs? We can start by including Indigenous academics, consulting with tribal governments, and designing studies with Indigenous theories, methods, and models. As part of the professional standard and procurement policies for governments, for profit agencies, and nonprofit organizations, we can create requirements for including Indigenous academics and organizations in prominent positions and in significant contracts for evaluation, policy, or research studies and related training and technical assistance contracts. We can develop contract language that includes community, culture, and Tribally based human subjects and intellectual property protections. Together, we can learn not only how to coexist but how to co-construct, cocreate, and copresent our findings in ways that are effective for funder and tribal participants and translational to the closest levels of use at the community level.

The answers to our evaluation profession's challenges, gaps, and dilemmas do not exist *solely* in the academy, a prominent keynote, or a national or international publication. Culturally responsive and scientifically rigorous contributions from Indigenous academics are also in peer-reviewed publications not often valued or promoted at mainstream conferences. Examples include the National Indian Education Association's website, the National Congress of American Indian's Policy Research Center Website, the Collaborative Research Center for American Indian Health, and the U.S. Indigenous Data Sovereignty Network website. Hundreds of Indigenous evaluators can be accessed within AEA through the Indigenous Peoples in Evaluation Topical Interest Group and globally via EvalIndigenous. The countries participating in EvalIndigenous (a working group of EvalPartners) can also connect interested evaluators with hundreds of evaluators in their home countries. National and international organizations such as the National Congress of American Indians, United Nations Permanent Forum on Indigenous Rights, American Indian Higher Education Consortium, and the Collaborative Center for American Indian Health can help evaluators better understand evaluation considerations within specific Indigenous venues, as can research universities and tribal colleges and universities such as Dine' College, United Tribes Technical College, Haskell Indian Nations University, and the College of Menominee Nation. Native American-owned corporations and nonprofits such as Tribal Tech, Masterkey Consulting, Bowman Performance Consulting, Native American Rights Fund, National Indian Education Association, Tribal Education Departments National Assembly, and Native Americans in Philanthropy also provide opportunities to build relations and engage Indigenous evaluators for those who make this a priority.

Creating authentic relationships with other Indigenous agencies and people is important. Building purposeful academic, educational, and workforce pathways for the inclusion of tribal governments, Native nonprofits, tribal colleges and universities, native for profits and entrepreneurs through targeted and responsive outreach to include and link to Indigenous groups and initiatives will help strengthen the profession and associations of evaluation. Some examples of strategic inclusion in evaluation include EvalIndigenous (http://www.evalpartners.org/evalindigenous/about) via Eval-Partners, AEA's Indigenous Peoples in Evaluation (http://comm.eval.org/aeaipetig/home), Alaska Evaluation Network (https://thealaskaevaluationnetwork.wildapricot.org/), the Hawaii/Pacific (https://h-pea.org/) Evaluation group, ANZEA in New Zealand (http://www.anzea.org.nz/), and the Center for Culturally Responsive Evaluation (http://crea.education.illinois.edu/). Nonprofits such as the Anne E. Casey Foundation, WK Kellogg Foundation, and the Robert Wood Johnson Foundation all have building the pipeline and diversity in evaluation initiatives that are currently strategically

engaging culturally responsive and Indigenous evaluators. All these partners offer ways to further access and engage with other Indigenous and culturally responsive evaluators.

Beyond the academy and institutions, evaluators can approach the communities themselves—who know the context best—for help. There are generations of Indigenous communities (rural, urban, rancheria, village, and reservations), tribal governments (567 in the United States alone), and traditional cultural leaders with strengths, competencies, resources, and knowledge that could help the field of evaluation and evaluators generally be more responsive and effective in documenting evidence-based practices and models if we have the courage to approach them and humbly ask for guidance and assistance.

Our challenge is to make culturally responsive and IE an area for our professional growth, as we would for any other evaluation subject matter area. Growth begins with academics and practitioners who are willing to step into the unknown, provide time and other resources, and be open to valuing knowledge that originates at the community level, asking for help as needed. Evaluation professionals must understand and accept that capacity building and learning do not flow only from professionals and academics but are gifts that can be exchanged in both directions. Being aware of Native American academics and SMEs is not enough. Outreach and inclusion of these Native scholars and agencies will provide contextual and experiential learning essential to evaluators and the field of evaluation.

Loowaneewang (Low-one-neh-wung)—Northern Door: Wisdom to Guide New Beginnings

Lunaape Northern Door teachings (understanding and insight as things come full circle again). Northern Door teachings offer guidance for our individual professional evaluation practice and to the field of evaluation. As evaluators, once we recognize the extent of the structural racism in which evaluation is complicit, we can choose to become active participants in a transformative evaluation practice when working together with Indigenous people and Tribal governments. Consulting with Elders and ancestors who sit in the Northern door with their "White" hair, evaluators can use wisdom and lifetime experiences to build more responsive organizations and systemic supports for changing the way the business of evaluation is done *with* (not to or on) Indigenous peoples and Tribal governments.

The first step we must take as individuals within an academic and evaluation community is being "woke" or aware and admitting there is a problem. In other words, we must begin to recognize and address the pain and anguish caused by assimilationist policies and colonized practices of the past and present so we can recognize and address it in our academic, policy, and programming activities (Goodkind, LaNoue, Lee, Freeland, & Freund, 2012; Hill, 2008; Sequist, Cullen, & Acton, 2011; Smith, 2012). This step is vital to changing outcomes for Indigenous populations that have remained virtually unchanged or worsened in the last century or more (Brave Heart, Chase, Elkins, & Altschul, 2011; Brave Heart & DeBruyn, 1998; Jones, 2006; Walker, 1999).

As individuals, some evaluators also need to mourn and heal. Others need to trust, listen, and grow. And some may need to retire or find a new profession because they are causing trauma and harm through trivializing IE or through sheer political or economic greed related to grants and contracts in IE. As our mission and vision statement remind us, as members of the AEA, we *all* are responsible for a collective effort to address these wrongs, based upon the charge to be an inclusive, diverse, and effective organization as well as ethical, responsive, and professionally skilled and competent evaluators (American Evaluation Association, 2016). How can this be achieved?

For individual evaluators, a first strategy is committing to reading one of the books or substantial resources suggested in this article. Reading one per year can build knowledge and transform awareness. Evaluators who prefer more frequent, shorter doses of information can join the Native

American organizations or the Indigenous Peoples in Evaluation Topical Interest Group (TIG) at AEA for access to free newsletters, regular updates through social media, and other resources. Moving beyond books, workshops, and lectures, actual engagement with Indigenous scholars, traditional scholars, and community members will help shape the practice individual evaluators read or learn about in training sessions or classrooms.

The methods we use when working with Indigenous communities should be guided by the fact that Indigenous people belong to sovereign nations with inherent legal and political rights afforded to no other racial or ethnic group. Thus, consideration and respect for Indigenous communities is a priority. Appropriate methods include using tribal IRBs, or inquiring if there are tribal colleges or universities that can monitor for human and cultural protections. Culturally responsive evaluators can cocreate shared data agreements and colead studies with Indigenous scholars and provide accountability checks by pointing out when Western or mainstream agencies are not incorporating Indigenous methods and policies. These Indigenous theories, methods, and frameworks (legal and evaluative) will naturally support the cultural, linguistic, and community context that also should be incorporated into an evaluation study.

Evaluation design should be purposeful in financial and policy strategies as well as generous with resources and supports. This means designing bids with diversity and Indigenous experts in mind and including Indigenous evaluators and Tribal Nations or tribal national nonprofits as authentic partners and co-primary investigators (PIs) in wider scale diversity initiatives and as participants at the table for creating systems changes with state, national, and international government agencies. For instance, evaluators should be aware of receiving extra points on a bid when Indigenous evaluators and authentic tribal partners are included. Ideally, engaging Indigenous SMEs and organizations would be required when working with Indigenous people and whenever possible, Indigenous contributors would lead such studies. Appropriate compensation for subject matter area experts is also important; evaluation should value all SMEs, not just those from the majority and privileged populations.

Authoring with Indigenous communities and academics is another way to engage and give back to Indigenous populations. Creating useful work products beyond conventionally published articles that can stay in the community and provide value (e.g., briefing papers, data warehouses, and protocol development) is another strategy for successful sharing and co-ownership of projects and data. Equal access, participation in high-profile initiatives, inclusion on policy and leadership activities, and as partnership for training events are all concrete ways AEA and the field of evaluation can include Tribal Nations and Indigenous scholars and practitioners.

As members of the greater evaluation community, evaluators should review, engage in critical dialog, and revise public statements by AEA or other organizations; become involved in diversity initiatives through the association or the other nonprofit partners discussed above; and critically review the membership on evidence-based policy, journal review, and elected leadership boards at AEA, on key national or international work groups, or at their home organization. Are these statements, organizations, and groups living up to their charge or purpose? Are they truly representative of diversity and inclusive of Indigenous people and tribal governments? Collective voices and critical but constructive dialog will move the evaluation community forward.

The evaluation profession needs to be purposeful and strategic in its efforts to acquire the professional skills and association capacities for IE with tribal community members and sovereign tribal governments. More presentations, publications, presidential strands, and keynotes at AEA's annual or summer professional development offerings can highlight collaborative, effective, and responsive case studies. The profession must also be proactive, recognizing that it is not Indigenous people's responsibility to educate practitioners. Evaluators must actively seek out knowledge and request wisdom as well as develop real scientific literacy and technical competencies, knowledge, and skills needed to carry out this work well.

Seeking out knowledge is not sufficient if that knowledge is not shared with the wider profession. In order for IE processes to be better understood and incorporated into practice, this responsive IE work must become part of the normal, everyday, standard discourse in individual professional practices, within the cultures of the organizations where evaluators work, within academia and in professional associations. It is important as an evaluation profession and association that we collaboratively and with permission from our Indigenous partners, actively and purposefully document data, best practices, and methods for building responsive and responsible policies, programs, and systems to support transformative and sustained changes. Indigenous resources, publications, and prominent presentations (plenaries, presidential sessions, and live streaming events) must be included in the mainstream evaluation agenda to keep Indigenous concerns at the forefront of social and academic discourse. Archiving and making these publications and other resources free and publicly available is essential to this effort.

Finally, from a global perspective, evaluation must continue to support and build upon the work being done by EvalPartners and EvalIndigenous using the 2020 agenda and incorporating the principles espoused by the UN *Declaration of the Rights of Indigenous People* (United Nations, 2008). Echo-Hawk (2013) and Kukutai and Taylor (2016) provide concrete suggestions for building UNDRIP's evidence base and making Indigenous data collection, research, and evaluation a sovereign and self-determined effort, truly building a pathway to achieving Indigenous self-sufficiency.

Conclusion

When evaluation with Indigenous communities is done collaboratively, responsively, and respectfully, evaluators can change not only our own practice and profession but also the lives of Indigenous people and communities. Drawing parallels between the Indigenous and Western worlds is imperative to engaging non-Indigenous evaluators in a deeper and more transformative way and is already is being done through CBPR, participatory and empowerment evaluation, systems evaluation, and developmental and utilization–focused evaluations, to name several. Someday, perhaps using Western and IE methods together will become a more common and blended practice, not a separate and additional step of the evaluative process.

As a humble caretaker of Indigenous knowledge about evaluation, I give this article as an offering, that as evaluators, we may become more self-aware, able to change professional practice, and ultimately begin to heal and reverse the effects of colonialism on Indigenous people and Tribal Nations. We must continue to ask, "*Are we putting the highest burden of responsibility on those least in power, with the fewest resources, lowest capacities, and with the highest needs to create systemic and sustainable change?*" (italics added for emphasis). It is the evaluation profession's *collective* responsibility—not just the Indigenous or evaluator of color's responsibility—to live the mission and vision of our professional associations by holding each other accountable, so we can improve ourselves and our broader community(ies) of practice.

Social justice change begins with us. Without an explicit commitment and dedication to change, the evaluation profession will continue to contribute to and proliferate structural injustices and inequalities—no longer through ignorance, but by choice. I humbly but directly ask my colleagues within the profession to purposefully, thoughtfully, and actively dedicate our resources to reverse the historic and current impact of structural racism on Indigenous populations, by building the skills, knowledge, abilities, and capacities to evaluate in Indigenous contexts and with Indigenous participants and tribal governments. Together, we can improve evaluation practice and our profession, one project or conference or initiative at a time. Collectively, we can advocate within our workplaces, networks, professional organizations, and systemically across the broader field of evaluation for the rights of Indigenous people and Tribal Nations. Anushiik njoos (with appreciation and thanks, colleagues).

Appendix A

Conquest Maps

These figures illustrate precontact and postcolonial contact (first figure from www.mohican.com; second figure from Stockbridge-Munsee Community, n.d.). This is the forced removal of my family and tribal ancestors from our tribal homelands in the north and east to our current Reservation in Wisconsin.

The Stockbridge Mohicans' "Trail of Tears."
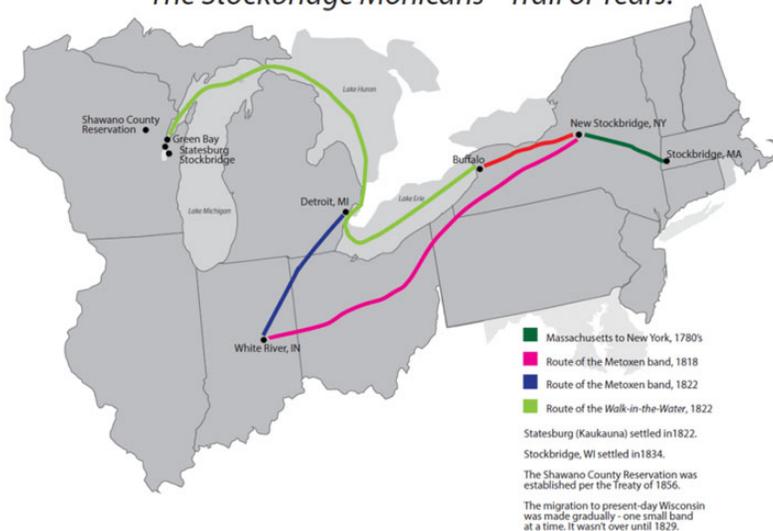
Appendix B

Summary of Tribal/U.S. Relations

A brief summary of tribal/U.S. relations includes the following key events and eras (Pevar, 2012):

- *Pre-1494: the "Precontact" Era* in what is now called the United States.
- *1492–1787: Tribal independence*. Hundreds (oral history says thousands) of sovereign Tribal Nations existed in what is now called North America.
- *1787: the U.S. Constitution* established America's national government and fundamental laws, guaranteeing certain basic rights for its citizens.
- *1787–1828: agreements between "equals."* Negotiated treaties between individual sovereign Tribal Nations and the United States established borders and prescribed behavior between the parties, predicated upon the inherent right of Tribes to govern their people as sovereign nations.
- *1832–1871: American Indian nations considered domestic, dependent Tribes*. Negotiated treaties between Tribes and the United States had to be approved by Congress (National Archives, 2016).
- *1871: the U.S. House of Representatives stopped recognizing individual Tribes within the United States as independent nations* with whom the United States could establish treaties.
- *1887–1934: The Allotment and Assimilation Era* continued forced removal of sovereign Tribes from lands coveted by White settlers. Forced assimilation and education of Indigenous people was instituted; this included separating families and imposing severe punishments for speaking Native language or practicing culture in an effort to civilize Indigenous people or "kill the Indian and save the man" ("Capt. Richard H. Pratt on the Education of Native Americans," n.d.).
- *1934–1953, Indian Reorganization Era (IRE)*. Federal policy toward Indigenous people adopted a more humane approach following the Merriam Report of 1928 (Meriam, 1928). Federal policy allowing restoration of tribal independence was supported under the Indian Reorganization Act of 1934.
- *1953–1968, the Termination Era*. The Hoover Commission (Lederle, 1949) called for complete integration of Indigenous people into White society, fostering several important pieces of legislation.
  - U.S. House Resolution 108 terminated the federal government's trust relationship with Indian Tribes. All federal benefits, resources, and programming/support services were terminated, tribes were no longer considered "wards of the state," and U.S./tribal trust relationships were ended (H. R. Con. Res.108, 1953). During this time frame, 109 tribes were terminated; additionally, many tribes vanished or disbanded, and many reservations were abolished.
  - Public Law 280 gave six states (Alaska, California, Minnesota, Nebraska, Oregon, and Wisconsin) criminal jurisdiction over Indian reservations (Indian Relocation Act of 1956; Public Law 83–280; Pevar, 2012, p. 12). PL280 virtually eliminated federal justice law and resources, confusing matters between state, tribal, and federal governments, creating a jurisdictional "black hole" around crime and victims of crime in Indian Country. (Tribal Law and Policy Institute, n.d.).
  - The Indian Relocation Act of 1956 (Pub. L. 959) prompted many Indigenous tribal members (including my father, grandfather, and uncles) to leave reservations to work on job programs in urban areas because there was no economic development on reservations given the abrupt termination policies of this era.
- *1968–Present, Indigenous self-determination, survival, and resistance*: As part of the civil rights movement, tribal governments and Indigenous people worked hard to restore their

communities, their families, and their lives. Tribes asserted their sovereignty, resulting in many positive policy and program changes in education, economic development, health, justice, and human services (Bowman, 2015; Champagne, 1997; Cornell & Kalt, 2010; National Congress of American Indians, n.d.).

Appendix C

Tribal Institutional Review Board (IRB) Resources

Colorado State University: https://vpr.colostate.edu/ricro/irb/research-with-native-american-populations/

Collaborative Research Center for American Indian Health (CRCAIH) Tribal IRB toolkit: https://www.crcaih.org/irb-toolkit.html

CRCAIH Tribal IRB Checklists: https://crcaih.org/resources-research-regulation/checklists-to-facilitate-tribal-irb-review-and-monitoring-of-research.html

Indian Health Service Tribal IRBs and Independent Tribal IRBs: http://itcaonline.com/wp-content/uploads/2013http:///06/American-Indian-IRBs.pdf

Rocky Mountain Tribal Leader's Council: https://www.rmtlc.org/general-irb-resources/

Southwest Tribal NARCH: http://mynarch.net/SW_Tribal_IRB.aspx

UC Denver's Tribal Early Childhood IRB Presentation:
http://www.ucdenver.edu/academics/colleges/PublicHealth/research/centers/CAIANH/trc/Documents/Webinar%205%20TRC%20IRB%20Part%202_Review%20decision%20tree_FINAL.pdf

U.S. Indigenous Sovereignty Network. Hosted by the University of Arizona: http://usindigenousdata.arizona.edu/about-us-0

Notes

1. I humbly ask with traditional prayers and Wchapihkal (medicines) that my words and the content of this article are taken in a good way and are carried in all directions of Kukuna Ahkuy (our Mother Earth). Aho (Aho means respectful acknowledgment to ancestors and supporters, a common sacred and cultural "shout-out"). Anushiik (Anushiik translates to thank you or with appreciation).
2. Appendix B of this article provides a more comprehensive summary of historic United States–5ribal relations.
3. This working definition was developed as a result of participation in the 2005 Culturally Responsive Evaluation Institute at Howard University, an initiative of the American Evaluation Association 2004–2007 diversity engagement and pipeline project, funded in part by the National Science Foundation.
4. Based upon review of AEA board minutes, key documents, budgets, Graduate Education Diversity Internship program participation, tribal/public government consultation sessions (i.e., Evidence-Based Practice work group and Evaluation Policy Task Force minutes or representation), and represented by the key elected or appointed AEA leadership positions or committees.

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Culturally Responsive Indigenous Evaluation and Tribal Governments: Understanding the Relationship

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Abstract

Over the last decade, culturally responsive (CR) indigenous evaluation resources have become more readily available to academia and evaluation practitioners within the mainstream literature. This is a direct result of the growing number of Indigenous evaluators in the field; the increased access and opportunities for Indigenous and non-Indigenous partners collaborating on evaluation projects and academic initiatives; and changes in policy, programming, and funding that better support CR and/or culturally responsive indigenous evaluation (CRIE) initiatives. This chapter examines four overarching content summary areas for CRIE: historical and legal foundations; design approaches; application; and practical CRIE strategies for strengthening professional practice and building evaluation industry capacities for CRIE. © 2018 Wiley Periodicals, Inc., and the American Evaluation Association.

Introduction: Situating Culturally Responsive Indigenous Evaluation

The aim of this Indigenous[1] evaluation story, from our voices, is to situate Indigenous evaluation within a broader historical and evaluation context and present an emergent, self-determined pathway forward—culturally responsive Indigenous evaluation (CRIE)—that honors both the cultural and political constructs that should be at the heart of any Indigenous model. To do so, we call upon the Lunaape (Munsee)/Mohican medicine wheel framework to structure the content of this article (Grumet, 2002). We focus on the U.S. context, but suggest consideration for Indigenous evaluation practice globally.

Ktanaxkihlaak (Kah-taw-nah-x-kee-lock)—Eastern Door. This door is about our origin story and beginnings. We situate Indigenous evaluation within a broader historical and legal context as a starting place for collective awareness of our histories.

Shaawaneewang (Shaw-one-neh-wung)—Southern Door. This door is about balanced development and Indigenous contributions. We summarize critical theories and methods that contribute to the field of Indigenous evaluation and then present the CRIE evaluation model.

Wsihkaang (wh-see-kong)—Western Door. This door is about perseverance and unknown potentiality. We share a CRIE case study that is culturally responsive, scientifically rigorous, and includes the legal/political aspects of Tribes.

Loowaneewang (Low-one-neh-wung)—Northern Door. This door is about elder wisdom to guide new beginnings. We offer guidance for our professional evaluation practice and broadly to the field of evaluation.

Ktanaxkihlaak (Kah-taw-nah-x-kee-lock)—Eastern Door: Origin Story and Beginnings

The federal government of the United States recognizes 573 American Indian and Alaska Native Tribes and villages (Bureau of Indian Affairs [BIA], 2016). Prior to European contact, Indigenous populations lived all over

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[1] When possible, we chose to use the word ***Indigenous*** for describing ourselves, others, or a community of the First Inhabitants of this land but recognize the cultural, linguistic, and governance diversity of Tribal people and Nations. As Linda Smith (2012) notes, the term "Indigenous" has historic resonance, "Indigenous peoples is a 1970s term from the American Indian Movement to internationalize experiences of Indigenous peoples around Mother Earth ... it represents our collective voices to finish the unfinished business of decolonization" (p. 7). Also, when possible and appropriate, we choose to use our Lunaape (Delaware) or Moh-he-con-nuk (Mohican) language (Waapalaneexkweew [Nicole Bowman]), Oneida or Menominee (Carolee Dodge-Francis), other Tribal languages, or Indigenous terms within this article.

in balance with other Indigenous communities, Mother Earth, and all the water, land, and sky inhabitants. Living as caretakers of Turtle Island (not "owners" of it) provided ancient guidance that allowed for all forms of life to live in natural equilibrium with each other. We begin with a high-level overview of Indigenous people's historical experiences and Tribal nations' legal treaty and contemporary constitutional rights as the original peoples of North America. This legal and political foundation, coupled with the cultural content and community contexts of Indigenous communities and Tribal nations, is critical for the global field of evaluation and practicing evaluators designing and implementing evaluation studies with Indigenous populations (urban, rural, Reservation, or international). Each Tribal community is different, and each will have a unique historical narrative, cultural traditions, language, community practices, and political, legal, and governance structures.

Briefly, the impacts of Colonial or non-Tribal people on Indigenous people in the United States can be summarized in three eras: The Pre-Contact Era (before 1492 and European or Colonial contact to Turtle Island, now known as North America); the Early Colonial Contact Era (1492–1786 known as the Treaty); and the United States Constitutional Era (1787 to present). For brevity, the focus here is on the last era. This provides an overview of the historical context that we are currently in (Constitutional Era), which has contemporary implications for the field of evaluation, evaluation policy, and governance evaluation and policy between Tribal Nations and other sovereign countries, including the United States. (For detailed information about all three eras, see Waapalaneexkweew [Bowman, forthcoming]).

Beginning in 1787, the government of the United States conducted relations and made treaty agreements with Tribal nations through treaties that had to be approved by the U.S. Congress (National Archives, 2016). Treaties were "contracts among nations" (BIA, 2016) in which Tribes gave up millions of acres of their homelands and vast natural resources to the United States in exchange for protections and maintenance of the health and livelihood of Indigenous peoples and communities. Treaties were considered the supreme law of the land and were predicated on the inherent right of the Tribes to govern their own people as sovereign nations (Pevar, 2012). Treaties became the foundation of federal Indian law and the federal Indian trust relationship with the United States (BIA, 2016). In total, none of the 384 treaties (Kappler, 1904) were kept despite being the contemporary basis for Indian law between sovereign governments (that is, the U.S. government and 573 individual Tribal governments in the United States).

Tribal nations have a unique government-to-government status with the United States and possess a nationhood status that retains their inherent powers of self-government (Ball, 2000). A Tribe's inherent rights of sovereignty and treaty rights are protected by the U.S. Constitution under the Supremacy Clause, and further embedded within the trust

relationship and subsequent legislation (Reinhardt, 2008). Federal Indian trust responsibility is legally enforceable as a fiduciary obligation and duty that the United States must uphold to protect Tribal rights related to land, education, resources, economies, health, and other quality of life aspects.

Sovereignty applies across many Indigenous communities, contexts, sectors, and disciplines (Barker, 2005; Cram, 2005)—including evaluation. In fact, sovereignty is considered so foundational that most legal scholars consider sovereignty the "single most important legal right that Indians have and if Indians lost this right it would be difficult, if not impossible, to protect any of their other rights" (Pevar, 2008, p. 1; Jorgensen, 2007; Pevar, 2002). The United Nations Declaration on the Rights of Indigenous People (UNDRIP) also calls for addressing the minimum standards for the survival, dignity, and well-being of the Indigenous peoples of the world (United Nations, 2008), as does the recently developed American Declaration on Indigenous Peoples Rights (Organization of American States, 2016).

Respect for the legal ramifications of Tribal sovereignty is a critical aspect of any professional or academic pursuit undertaken in Indian country. Unfortunately, for many Tribal communities and governments, evaluation has not been an equal, collaborative, or value-added process (Anderson et al., 2012). Few evaluation publications address the core issues that have the highest impact for Tribal communities, such as sovereignty, self-determination, and decolonization within the context of an evaluation study. Bowman (2006, forthcoming), demonstrated the lack of capacity of non-Indian funding agencies to meet the legal, cultural, and contextual requirements of Tribal governments when conducting "multijurisdictional" research and evaluation studies. Even the synthesis of the literature by governance evaluation "experts" (Schoenfeld & Jordan, 2017) omits sovereign Indigenous governments despite their recognition by over 144 countries that signed the UNDRIP (United Nations, 2008). Combining culturally responsive evaluation (CRE) and sovereignty issues will begin to address the lack of attention to this area.

Shaawaneewang (Shaw-one-neh-wung)—Southern Door: Balanced Development and Indigenous Contributions

Indigenous peoples have different experiences and origin stories related to evaluation. Though we have spoken with many elders, none has yet shared with us an Indigenous word that translates to the English term "evaluate." When we seek wisdom about Indigenous evaluation from our elders, what is most often heard are concepts, teachings, and stories about life or death. If our ancestors did not assess or evaluate a situation, length of a season, food supply, and so on, it could literally mean life or death. In terms of evaluation, our elders tell us that it is a way of understanding the world, "something that happens is not good or bad, it just is and we have an opportunity to learn from it" (Chohkalihke [G. Jacobs], personal

communication, July 2015). This section shares a brief history and situates CRIE within the field of CRE. Through professional and community experience from our "elders," the authors share the development and methods of a self-determined, emergent model for evaluation, namely the CRIE model.

CRE arose in the early 1970s and is influenced by responsive evaluation (Stake, 1972) and culturally responsive pedagogy and curriculum efforts prevalent in the 1980s and 1990s (Center for Culturally Responsive Evaluation and Assessment [CREA], 2016; Hood, Hopson, & Frierson, 2005). CRE explores a decentralized, contextualized, transformative, and responsive evaluation model where social justice and evaluation meet. CRE uses evaluation theories and collaborative methods, study designs, and sharing of study findings to locally situate and study issues of importance to community members and stakeholders who are most impacted by the evaluation (Stake, 1972) or those who have the most at stake in the evaluation results, including underrepresented and vulnerable populations (Hood, Hopson, & Frierson, 2005, 2015; Hood, Hopson, & Kirkhart, 2015). Traditionally we would honor and call CRE our family or *laan = gómeew* (related to, our relative) because of the welcoming place they have created for us as Indigenous evaluators, and the way they value Indigenous evaluation in all our rich diversity as vital contributors to the field of evaluation.

Second, Tribally Driven Participatory Research (TDPR) expanded the field by exploring research where culture, context, and political/legal sovereignty is central to the research being conducted in Indian country (Collaborative Research Center for American Indian Health [CRCAIH], 2015; National Congress of the American Indians [NCAI], 2012; Mariella, Brown, Carter, & Verri, 2009; Jernigan, Jacob, & Styne, 2015). In this case, the end results were congruent to the process. TDPR moves community-based research or evaluation from a passive to active stance in that research is "Tribally driven" versus "Tribally based" (Letendre & Caine, 2004).

Third, the trilateral model (TLM) (Reinhardt & Maday, 2006) is a decolonized and indigenous-centered way used to situate Tribal sovereignty to frame, test, and modify the design, inclusion, and implementation of legal/political aspects and cultural/community context of Indigenous communities and Tribal governments. When multiple governments (Tribal, federal, state, and so on) work together to develop and implement American Indian evaluation, research, and policy studies, the use of a trilateral framework provides a structure for these governments and their associated agencies or departments to work collaboratively to carry out studies with Indigenous people.

Last, the other "relatives" contributing to our growth and practice in Indigenous communities include critical race theory (CRT) (Darder, Torres, & Baltodano, 2009; Delgado & Stefancic, 2001); Tribal critical theory, which builds on the CRT framework by applying it to the distinct legal, political, historical, and cultural components that are uniquely tied to Indigenous people and Tribal governments (Brayboy, 2005; Pulitano, 2003);

and decolonization and Indigenous theory and methods (Smith, 2012; Wilson & Yellowbird, 2005; Kovach, 2010).

Succinctly, CRIE and culturally responsive (CR) research, evaluation, and policy studies work well together to include Indigenous populations that span across sectors and disciplines, and which often require a systems roadmap for academic studies and initiatives. (Bowman, 2007; Bowman & Reinhardt, 2014, 2015, 2016; Bowman, Dodge-Francis, & Tyndall, 2015; Garasky et al., 2016; O'Connor et al., 2015).

An Emerging Model: Culturally Responsive Indigenous Evaluation

CRIE is situated within and as a partner to CRE. CRIE's contemporary evaluation origins are found in publications as early as the 1960s, with roots in public health and public policy administration (Hutchinson, 1960; Suchman, 1967). CRIE began as a practical method and strategies used to include culture, language, community context, and sovereign Tribal governance when conducting research, policy, and evaluation studies (Bowman, 2006). After nearly a decade of cultural and linguistic growth, development and application of CRIE strategies, the CRIE model was developed and tested as an emerging evaluation framework (Bowman & Cram, 2014; Bowman, Dodge-Francis, & Tyndall, 2015; Bowman, 2017a). CRIE uses traditional knowledge and contemporary Indigenous theory and methods to design and implement an evaluation study, so it is led by and for the benefit of Indigenous people and Tribal nations. The CRIE model[2] was created as a flexible, four-part framework. This model allows for adaptations for community context/building community, cultural responsiveness/traditional teachings for solving issues, documenting strengths as well as needs or challenges, and flexibility to meet local and funder requirements for evidence-based evaluations (see Table 1.1 below).

Wsihkaang (wh-see-kong)—Western Door: Perseverance and Unknown Potentiality

From the western direction, we apply the CRIE model to a case study. In 2014, Bowman Performance Consulting (BPC) participated in a federally driven team charged with evaluating the capacity of Tribal governments and Indigenous communities in the United States to administer their own food and nutrition assistance programs. Stakeholders included Tribal government representatives, federal nutrition representatives, and the

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[2] The initial development and evolution of the CRIE model are by Waapalaneexkweew (Nicole Bowman) as given per traditional teachings and responsibilities through the Stockbridge Munsee/Mohican elders and traditional culture/language teachers (2003–2017).

Table 1.1. Evolution of the CRIE Model

Western Paradigm	Indigenous Paradigm	Blended CRIE Model Framework
Strengths, skills, and capacities	Relation and community building	Building community through sharing knowledge and strengths, using a strength-based approach
Challenges and barriers	Using your teachings	Seeing challenges as opportunities for applying teachings and community problem solving activities
Gaps and needs	Humility and balance	Addressing needs and gaps by humbly asking for help, co-developing solutions, and restoring balance
Solutions and strategies	Visioning and path-finding	Using community and experiential knowledge to document evidence-based practices that guide decision-making and a future sustainable vision

Prime,[3] a for-profit international evaluation firm. The study had four objectives:

1. Identify services, functions, and activities associated with administering nutrition assistance programs.
2. Consult with Indian Tribal organizations (ITOs) to determine the extent of their interest in administering these programs.
3. Understand the readiness of ITOs to administer these programs based on the services, functions, and activities associated with administering all or part of these programs.
4. Identify statutory or regulatory changes, waivers, or special provisions that would be needed for ITOs to administer each nutrition program.

The project team employed a multimethod and culturally responsive design that included document reviews, consultations with official Tribal government representatives, additional outreach to Tribal leaders and program staff, a survey of Tribes, and site visits. The methodology was based on an exploratory case study design as defined by Yin (2003); investigating a contemporary phenomenon within a real-life context while using both quantitative and qualitative measurements. CRIE strategies were used to select theory/methods, prepare the evaluation team, design and implement the study, and present findings.

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[3] A Prime refers to the "Prime contractor" who is directly responsible and signs a contract for work with the Federal government. Subcontractors hold contracts directly with the Prime, not the Federal government.

Indigenous Theory and Methods as the Foundation of the Study

BPC and the Prime conceptualized and purposefully developed the procurement narrative (bid), created the study design, co-constructed internal trainings to prepare twenty-six Indigenous and non-Indigenous researchers, and had continuous monitoring, member checking, feedback, and quality assurance loops from start to finish using a TDPR and CDPR approach throughout the study. The project team involved Tribal stakeholders in guiding study activity whenever possible, for example, in planning with the internal team and externally through early stakeholder discussions. Their expertise assisted and informed the study process and implementation throughout the 15 months of the study.

Collaborative planning began with the review of key documents, project roll out discussions with the federal program officers and the Office of Management and Budget (OMB), and initial conversations and consultations with Tribal governments and the federal Office of Tribal Research (OTR). It should be noted that early teleconference calls with Tribal government participants held a note of angst, as some of them wanted more formal Tribal consultation guarantees, as sovereign Tribal governments are afforded under current law. However, this concern subsided once it was known that an American Indian company would play an integral role within the process, that there would be many opportunities for feedback online and through face-to-face outreach efforts, and that OTR and other Indigenous stakeholders (that is, NCAI) would be advisory partners throughout the study.

BPC Indigenous Centered Training

A critical element was acquainting non-Indigenous project team members with the often-troubled history of evaluation and research with Indigenous populations, explaining the concepts of Tribal sovereignty, and providing contextualized perspectives that were culturally unique to each community we surveyed or visited. The twenty-seven member research team received training in this approach from subject matter experts, themselves Tribal members, who were partners in the study along with ongoing embedded conversations throughout the entire study from design through reporting. After many weeks of development, BPC and the Prime created an internal training curriculum for the project team. This was sufficiently resourced and left to the lead evaluation team members (Indigenous and non-Indigenous) to design. Pre-reading materials were given to the training participants a week in advance and a full day online and interactive webinar training was provided to cover CBPR, TDPR, Tribal governance and sovereignty, an overview of the historical and cultural aspects of Indigenous populations, governance and operational differences of Tribes and Tribal nonprofits, and human, cultural, and intellectual property protections via Tribal IRBs.

Following the training, two group webinar meetings were held to discuss impacts of training, to answer any lingering questions, and to further prepare non-Indigenous team members for conducting site visits. Pre- and post-site visit meetings were conducted with evaluation team members to prepare for working with each Indigenous community where data was collected. Feedback indicated that the entire study team felt the training was critical to the evaluation.

Co-development of Study Protocols and Documents

Whenever possible, the team asked Tribal stakeholders for help in guiding the activities, for example, in the development of study tools. The project team built in multiple ways to receive varied and diverse stakeholder feedback throughout the study design, testing, and full data collection process, which included meeting documents; and formal administrative responses of the project team to key Federal and Tribal stakeholders including production and dissemination of the final report (Garasky et al., 2016). Ensuring that the Indigenous research team members and study participants had ample opportunities to provide feedback on cleaned or summarized data, draft findings, and final sections of the published USDA FNS study report was essential.

The instruments, protocols, and ongoing internal and external discussion and feedback loops were used for project monitoring and modification. They also functioned as learning tools for the study team and funders to learn about evaluation and study process needed to produce a valid, reliable, and accurate account of the Indigenous perspectives regarding the interest, capacities, and benefits/barriers to Tribal administration of federal nutrition assistance programs. The final report included syntheses, editing, technical writing, and inclusion of Indigenous scholars from the BPC team who were documented as contributing authors of this congressionally mandated study.

Site Visit Structure and Study Closing Processes

Site visits were simultaneously conducted with Tribal leaders of sixteen Tribal communities or organizations concurrently with documentation development and survey deployment and data collection. Thirteen site visits were completed, during which the team members spoke with more than eighty participants from sixteen federally recognized Tribes and Alaska Native villages. It was mandatory that each site visit had at least one Tribal representative, either from the BPC team or from the Tribal representative participant pool. An essential component of the site visits was the team debrief immediately after the site visit discussions. During debriefs, Tribal roles, terminology, or cultural components were discussed and explained to non-Native team members.

The report was completed in February 2016 and shared at a federal closeout meeting in spring 2016. At this meeting and thereafter, the internal report was shared with federal and Tribal stakeholders for feedback before its publication in June 2016. Since study was finished, there have been several activities informally that continue the work of the FNS project. Members of the initial project study team (Indigenous and non-Indigenous) have debriefed outside of the project, shared their experiences and what they learned, and have provided some initial feedback and perspective to the academic community through evaluation activities (Bowman & Chamberlain, 2015).

In summary the study was successful in academic, community context, and cultural ways because of the pre-existing relationships, networks, context expertise, and a working understanding (i.e. practical implementation using the theories, methods, and knowledge beyond just reading about it) of how to behave and conduct studies in diverse Indigenous contexts (rural, Reservation or Tribal Nation, urban, Native Hawaiian, and Alaska Native). The value-added team that BPC brought to the Prime contractor allowed the scientific and technical process of conducting this academic study to be strengthened; used the entire project and all the aspects (contracting, training internally, theory and method selection, development of design and instruments, data collection and reporting, and so on) as continuous and applied learning opportunities to build the capacities of non-Native and/or non-experienced academics and public agencies to grow; and resulted in Tribal nations and Indigenous communities from diverse geographic locations having a culturally responsive, community relevant, and scientifically rigorous evaluation experience with a multiethnic study team. Without Indigenous academics leading or co-leading this project, the study design, findings, and experiences would have been completely different. This is why true collaboration, with purposeful selection and adequate resourcing of Indigenous academics who equally participate as co-PI's, is critical to changing the way we work as evaluators. In short, if we change the front-end way we do academic studies (inputs, resources, supports, and so on) to be more culturally responsive, then the rest of the study activities are most likely to produce different and more valid results (outputs, outcomes, and impacts) that have the highest potential for transforming practice, policies, and programming. CRIE is one model to help us consider how we can do things differently, regardless of our sector or discipline.

Loowaneewang (Low-one-neh-wung)—Northern Door: Elder Wisdom to Guide New Beginnings

Indigenous evaluation was not seen in the literature until the 1960s, mainly regarding public health evaluations (Hogan, 2007). The current evaluation practitioners or the "founding fathers" or "pioneers" in evaluation (Dobkin Hall, 2004; Hogan, 2007; Williams, 2016, p. 7), have provided models

(Stufflebeam, 2001) that synthesize evaluation; these are further categorized in an evaluation theory tree of development demonstrating how the field has matured or evolved over the years (Alkin, 2004, 2012; Cardin & Alkin, 2012), but few include Indigenous authors let alone Tribal government considerations for evaluation (Schoenfeld & Jordan, 2017). The last few years has begun to illustrate a wider representation of Indigenous voices within the broader field of academia including data sovereignty and Tribal protections and governance in Tribal and non-Tribal research and evaluation initiatives (Bowman, 2015, 2016, 2017; NCAI, 2016; NCAI and MSU, 2012; University of Arizona, 2017).

To broaden and strengthen these new tenets within evaluation, the first step involves continued dialogue and understanding that "we don't know all" and "need to listen more, talk less" (that is, be the catalyst to dialogue not the inquisition). The academic and evaluation community can move forward through understanding that there exist multiple ways of thinking, processing, and applying evaluation methods. In other words, we must begin to recognize that the ills of history are not discrete entities but consist of culminating experiences that impact Tribal people and communities. These factors must be integrated into our academic, policy, and programming activities to jointly address devastating outcomes and policy/programming gaps (Seaquist, Cullen, & Acton, 2011; Hill, 2008; Jones, 2006). We view this as vital to changing outcomes for Indigenous populations that have remained virtually unchanged or worsened in the last century or more despite the policies and legal frameworks that have been available to improve conditions and impacts of Indigenous people and communities (Bowman, 2017; Brave Heart & DeBruyn, 1998; Walker, 1999).

The ability to include culture, language, community, and context within Indigenous populations and nations in evaluation goes far beyond simple inclusions or framing. Indigenous people belong to sovereign nations with inherent legal and political rights afforded to no other racial or ethnic group. Sovereignty must be respected (that is, utilizing Tribal IRBs and Tribal Council for study approval), and Tribal governments involved in our evaluation, policy, and political discourse. This requires scientific, cultural, legal, and governance competencies and skills by evaluators. To do less than this is marginalizing Indigenous people and Tribal nations, causing further trauma and harm, and demonstrates the technical deficiencies of the evaluation profession.

Conclusion

Evaluation should be a tool of transformation, improvement, and empowerment to solve chronic issues in society. Inclusion of Indigenous theories and methods, Tribal governments, and Indigenous people (as academics, community members, leaders, policy makers, and elders or traditional people) needs to be at the front end of this process, not an afterthought. We must

work together in an orchestrated effort to create a new evaluation paradigm, to expand the continuation of Indigenous populations at all strategic points within "evidence-based evaluation" and to put funding agencies, policy makers, and academics on notice that this step is not a suggestion but a fundamental necessity in creating the new North.

The good news is that the Indigenous resources and strategies outlined earlier are building blocks that pair well with many western foundations of evaluation (for example, community-based participatory research, critical theories, and transformative, utilization-focused, developmental, authentic, democratic, and empowerment evaluations) when done correctly, responsively, responsibly, and collaboratively. Drawing parallels between the Indigenous and western worlds is imperative to engaging non-Indigenous evaluators in a deeper and more transformative way. By using Western and Indigenous evaluation methods together as a truly blended practice and not a separate or after thought to the evaluative process, the expansion of evaluation partnerships, methods, and outcomes will be accomplished.

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CULTURALLY RESPONSIVE INDIGENOUS EVALUATION

A Practical Approach for Evaluating Indigenous Projects in Tribal Reservation Contexts

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ABSTRACT

Culturally responsive evaluations in Indigenous or Tribal government reservation geographic contexts are complex and multifaceted studies. These contexts include the intersection of multiple legal jurisdictions across federal, state, and Tribal governments based on funding source(s) and implemen-

tation site(s). Additionally, the cultural and linguistic components of Indigenous contexts vary greatly across communities where program evaluations are being conducted. Through a contemporary case example, the authors provide a framework for co-constructing a culturally responsive evaluation design and describe practical strategies for evaluating a federally funded program implemented within a Tribal government reservation context. Implications for replicating future culturally responsive evaluations are shared to move toward building a larger body of empirical studies guided by Indigenous evaluation frameworks, theories, and formal policies (i.e., the United Nations Declaration of Indigenous Rights).

Understanding Indigenous[1] culture and contexts is critically important in developing an effective Indigenous evaluation or research design. Awareness of diversity within and across Indigenous communities, understanding of the unique cultural and traditional norms, and ability to navigate the various contexts in which an Indigenous evaluation is carried out all contribute to successful research and evaluation. These contexts include the intersection of multiple legal jurisdictions across federal, state, and Tribal governments based on funding source(s) and implementation site(s). Too often, the absence and exclusion of Indigenous epistemologies, frameworks, methodologies, communities, and other resources from Western or mainstream academic research significantly contributes to gaps in policy, programming, and intended outcomes for Indigenous people.

Indigenous research conducted by Indigenous or non-Indigenous scholars must be ethical, culturally sensitive (Tillman, 2002) and appropriate for the communities where the research is conducted (Grande, 2004; Hood, Hopson, & Frierson, 2005; Kovach, 2010; LaFrance & Nichols, 2009; LaFrance, Nichols, & Kirkhart, 2012; Oakes, Riewe, Edmunds, Dubois, & Wilde, 2003; Smith, 2012). By including culture and context in a study's design, researchers and evaluators create a rigorous and responsive method (Hood et al., 2005), which increases opportunities for documenting the truth, allows for authentic participation of a wide variety of stakeholders, and increases the multicultural validity of a study (Kirkhart 1995a, 1995b, 2005; LaFrance et al., 2012).

Understanding historical context in this field is essential: researchers must acknowledge and address the dynamics of power (Gitlin, 1994) and disempowerment when creating research or evaluation studies conducted with Indigenous people. Prior to European contact, Indigenous people inhabiting North America used their own systems of self-governance to sustain high levels of health, education, social, and community welfare of Tribal people. Each tribe was unique in its culture; customs, worldview, traditions, and other teachings were grounded in a way of life that was distinct to each particular tribe. From Tribal histories, documents, and other Indigenous artifacts, we understand that life was not merely maintained, but Indian people thrived prior to European contact. Tribes met the needs of

their people through a blend of self-governance and cultural traditions in which the community members participated and provided accountability.

European contact forced North American tribes from their ancestral homelands, destroyed their communities (culturally and literally), and forced assimilation to a European way of life that is now considered mainstream North American culture. As centuries passed, tribes made treaty agreements with the federal government in which they gave up lands and other resources; in return, the federal government was to provide for their health, education, and general welfare. Eventually, under sovereignty and self-determination laws, tribes established Federal Indian Policy with the U.S. government.

Given this historical context, it is understandable that sovereignty and self-determination are paramount concerns in evaluations in Indigenous contexts. Tribal sovereignty and self-determination are not merely federal-level legal distinctions, but also have implications in terms of documenting, monitoring, improving, and supporting nation-building efforts carried out by Tribal governments and Tribal programs (Harvard Project on American Indian Economic Development, 2008; Jorgensen, 2007). Tribal identity, culture, health, education, and long-term socioeconomic success depend on nation-building efforts in which evaluation can be a key factor. Truly effective evaluation requires respect for and ability to navigate within this multijurisdictional (federal, state, local, and Tribal) environment.

In this chapter, we discuss what constitutes culturally responsive evaluation in the Indigenous context, focusing on theory, research, and policy that inform construction of culturally responsive Indigenous evaluation frameworks, political/legal considerations in Indigenous evaluation, and cultural/traditional concerns. We also describe the current state of culturally responsive evaluation in the Indigenous context, explain barriers to culturally responsive evaluation, and explore how those barriers are being addressed. We then use a case example to illustrate how principles of culturally responsive evaluation can be employed in a real-world Indigenous context in order to "see the world through the eyes of our ancestors and translate the best knowledge of the world into acceptable modern scientifi terminology" (Deloria & Wildcat, 2001, p. 28). In conclusion, we discuss progress toward culturally responsive evaluation in Indigenous contexts and steps for future growth.

CULTURALLY RESPONSIVE EVALUATION
IN THE INDIGENOUS CONTEXT

Overview

Evaluators and researchers must understand that Indigenous people, programs, and communities exist within various geographic contexts: rural,

urban, and Tribal reservation lands. Tribal reservations are part of the 565 federally recognized tribes acknowledged by the U.S. government. Each of these Tribal governments has their own set of elected officials, their own Tribal governance operational structure, and their own laws, policies, and procedures. Beyond Tribal governments, the focus of the case example in this chapter, there are also urban Indian communities. Urban Indian communities are found in large cities across the United States (e.g., New York, NY; San Francisco Bay Area, CA; Minneapolis, MN, Chicago, IL). Urban Indian communities normally have a community center, health center, and other urban Indian programming offices where services and resources are available to Indigenous people living off the reservation. Off-reservation Indians also reside in rural and suburban areas; generally, these people either go to Tribal reservations or urban Indian centers to receive services and programming. All these communities have varying legal jurisdictions, implement policy and programs differently, and have unique cultural norms set by the community members living in the geographic space.

Theory, Research, and Policy Informing Culturally Responsive Indigenous Evaluation

Because the academic base of Indigenous evaluation theory is not as robust or long-standing as work in other fields, we look to Indigenous guidelines from the research, education, and policy fields to anchor our evaluation work. Our chapter, like many of our Indigenous evaluation colleagues' presentations and published works, humbly offers our perspectives to further contribute to this knowledge base.

Tribal Critical Theory is a theoretical framework and method used to examine Indigenous people throughout the world for personal and Tribal empowerment and liberation (Brayboy, 2005; Pulitano, 2003). Unlike Critical Race Theory (CRT), which asserts that racism is endemic to society, TCT holds that colonization[2] is endemic to society (Brayboy, 2005). Brayboy's (2005) summary of TCT explains that this theory recognizes that Indigenous peoples strive toward Tribal sovereignty, Tribal autonomy, self-determination, and self-identification; this can conflict with governmental policies that are tied to the problematic goal of assimilation. TCT emphasizes the importance of Tribal beliefs, philosophies, and customs for understanding they lived reality of Indigenous people as well as the differences among individuals and groups. It also recognizes the importance of story as a legitimate data source and building block of theory, and insists that the interconnected nature of theory and practice demands that researchers work toward social change.

Evaluation designs influenced by TCT have the potential to employ Indigenous strategies that are authentic and alternative ways of knowing (Jacobs, 2008; Mertens & Cram, 2013; Mertens & Wilson, 2012) as well as contextually responsive, culturally relevant, and educationally empowering now and for the next seven generations[3] (Bergstrom, Cleary, & Peacock, 2003; LaFrance & Nichols, 2009).

Indigenous Evaluation Frameworks (IEF) situates an evaluation in context and relationship to the place, setting, and community in which the evaluation is carried out (LaFrance et al., 2012). In their work, LaFrance and Nichols (2010) identify four key values that must be included in creating IEF: being a people of a place, recognizing gifts, honoring family and community, and respecting sovereignty. IEF is a holistic framework that is conceptualized, designed, and carried out in a nonlinear way, with relationships and sub relationships concurrently informing one another and the evaluation as a whole. As Indigenous evaluators and authors, we often say, "We work with you, not on you" when serving an Indigenous community or client with an evaluation study. An analogy used by elders to describe this process is to envision sitting in a circle around the lodge or campfire and talking equally about perspectives, strategies, decisions, and usefulness of information for now and the next seven future generations. This philosophy differs from many Western theories and methods where evaluation and research is deemed an objective, disconnected, "study" of a program, project, community, or people.

The principles of TCT and IEF align with a larger, national, "Tribally driven" Indian research agenda (National Congress of American Indians Policy Research Center [NCAI PRC], 2013) that incorporates the following Indigenous guidelines (Strang & von Glatz, 2001):

- embracing the spirit of Indigenous sovereignty and self-determination within [an evaluation] context;
- providing educational research [and evaluation] for Tribal student, family, and community empowerment;
- legitimizing and liberating the Indigenous voice and perspective while deconstructing majority educational paradigms; and
- purposefully instructing and disseminating scholarly discourse within Native and non-Native publications, research and policy forums, public debates, educational or academic [and evaluation] communities and contexts.

As Indigenous evaluators, we consider these principles of Tribal control of a research agenda and evaluation central to our professional and academic evaluation work.

The Political/Legal Context of Indigenous Evaluation

Sovereignty and self-determination.

The late Daniel K. Inouye, U.S. Senator from Hawaii, testified many times that, "the sovereign status of Indian Nations predates the formation of the United States" (Wilkinson, 2004, p. xi). As a lifetime advocate for the political and legal rights of Indigenous people in the United States (Native Hawaiian, Alaska Native, and Native Americans), Senator Inouye understood the fundamental right of Tribal nations and Indian people to self-governance. Sovereignty (broadly), under federal law, recognizes that Indian nations are sovereign governments separate from the federal and state government, with their own inherent and unique rights to govern (Cohen, 1942; Pevar, 2012; U.S. Department of the Interior [DOI], 2013a; Wilkins & Lomawaima, 2001). Internationally, these distinct and legal protections extend to Indigenous people to safeguard their economic, social, cultural, linguistic, and political freedoms through the United Nations Declaration of Rights for Indigenous People (UN, 2008), including tribes or Indigenous governments in the United States, Australia, Canada, and New Zealand.

Researchers and evaluators must understand that when they conduct research within Tribal contexts, they are no longer under the jurisdiction of the state or federal government but rather that of the Tribal government. Thus, recognizing the tenets of Tribal sovereignty, self-governance, and self-determination, how these tenets intersect with state and federal laws and programs and their practical and logistical implications is critical to conducting culturally responsive, competent, and practical evaluations in Indian Country.

Multijurisdictional approaches to Indigenous evaluation.

Tribal governments follow their unique Tribal constitutions and are responsible for upholding Tribal law as well as protecting Tribal members' safety, rights, and well-being from non-Indian governments, organizations, and people. However, there is uneven capacity for evaluation across the 565 Tribal governments in the United States (DOI, 2013b). Tribal Institutional Review Boards (IRBs) and other human subject protocols are not consistent across Tribal governments or other Tribal organizations, and the comprehensiveness and formality of these ordinances, policies, and procedures vary widely. For example, fewer than 10% (Bowman, 2006a) of 565 recognized Tribal governments (Norris, Vines, & Hoeffel, 2012) have IRBs. Furthermore, of the 35 Tribal colleges operating in the United States, only 25% of them have their own IRB (Bowman, 2006a). Fewer than 1% of the Tribal governments have Tribal policies or Tribal IRBs for research, evaluation, and policy studies (Bowman, 2006a), and roughly 1% had ordinances, policies, and procedures formally developed for their Tribal IRB to work

in conjunction with non-Tribal partners (DOI, 2013b). This is problematic because when Tribal governments or Indigenous organizations (Tribal colleges, Tribal nonprofits, etc.) do not establish their own IRBs and other evaluation policies, they are more susceptible to designs, data, and programs that are not valid or effective for Indian populations in the long term (Bowman, 2006a; Deloria, 2002; NCAI PRC, 2013). The current lack of capacity and infrastructure to support culturally responsive evaluation that is led or overseen by Indigenous organizations or Tribal governments contributes to confusion and misunderstanding in the political/legal context of evaluation.

This confusion around the political/legal context is compounded by the current disconnect and lack of clarity between Indian and non-Indian people in terms of how policies are carried out through programming, documenting best practices, conducting appropriate evaluations, and human subject protection in Indigenous contexts at the institutional and systemic level. Often, federal and state governments do not recognize or understand the collective responsibilities and power of Tribal government IRBs (National Institute of Justice, 2013). In terms of education, the jurisdiction and authority for the education of Indian students who do not reside on a reservation has not been clearly established by case law (Native American Rights Fund, 2000), leaving it unclear as to who is responsible for ethical and culturally appropriate research on and off the reservation—external funding agencies or tribes? This lack of clarity leaves legal gaps and little leverage for Tribal governments or Indigenous organizations to negotiate or protect their human subjects and Tribal intellectual property, or keep cultural protection safeguards in place when working on programs funded by non-Indian governments, universities, and other nonprofit or for profit organizations.

We can look to work done in the justice and health fields for practical guidance in this regard when creating evaluations in Indigenous legal/political contexts. *Multijurisdictionality* is a legal term applied most often in justice contexts (Bureau of Justice Assistance, 2012). The federal government, usually through the justice and health departments, uses a multijurisdictional approach with state, municipal, and Tribal governments. This multijurisdictional approach links all forms of government into an interconnected system that helps agencies form policy task forces and working groups; develop information and resource sharing practices; form political alliances, create memos of understanding and legal ordinances or structures; and carry out research and evaluation studies to properly document evidence-based programs and practices carried out in municipal, state, federal, and Tribal contexts.

The evaluation community could benefit from a multijurisdictional framework when working in Indian Country, and much work has been

done to identify and establish the foundations of a multijurisdictional approach to evaluation in the Indigenous context (Bowman, 2005, 2006a, 2006b, 2007a, 2007b, 2008, 2011; Bowman & Dodge Francis, 2014; Bowman & Tyndall, 2014). From multijurisdictional work in other fields, we have determined that good evaluation design and implementation in the Indigenous context

- considers Tribal, state, federal, and international laws and policies for human subject protection, research or evaluation, intellectual and cultural property rights, data sharing agreements, and/or ownership, publication, and dissemination agreements that already exist;
- identifies connections and differences between Tribal grantee and non-Tribal funding agency policies and procedures;
- acknowledges current infrastructure and builds on commonalities and strengths in policies, reporting formats, and expectations;
- identifies and articulates policy and procedure gaps or differences in order to bridge gaps to achieve consensus;
- provides visual examples of forms, instruments, or other databases to demonstrate the grantee's potential evaluation methodology;
- uses or modifies existing Tribal instruments, databases, or processes;
- considers from the Tribal perspective how evaluation may enhance the development of current or new capacities, policies, or protocols for sustaining programming after the grant has ended;
- shares successes and best practices with other Tribal governments and Indigenous organizations, with the knowledge, consent, and participation of Tribal constituents;
- obtains permission to share, present on, or publish information outside of the Indigenous context in order to protect human subjects, cultural protections, and intellectual property rights.

By incorporating these best practices, the formal component of Indigenous evaluation recognizes existing Tribal capacity, considers local evaluation needs, and addresses what the funder requires. Both the funder's requirements and the needs of the governing local agency (Tribal government, Tribal nonprofit board, Tribal school board, etc.) are considered and included in the evaluation design.

The Cultural/Traditional Context of Indigenous Evaluation

In this section, we explore the cultural/traditional context of indigenous evaluation. The cultural/traditional context takes into account the community's shared collection of learned and socially transmitted behaviors,

beliefs, and institutions that act as a template to shape behavior and consciousness from generation to generation.

Evaluation and evaluators in the cultural/traditional context.

Evaluation completes the circle of research, development, and practice. However, an evaluator must possess the skills, knowledge, and competencies to design and carry out a culturally responsive evaluation that uniquely addresses an Indigenous context and project. An evaluator must be prepared to include multicultural validity (Kirkhart, 2005) because it is central to creating an evaluation design that produces valid, reliable, culturally responsive, and contextually appropriate findings. Cultural incompetency or lack of a multicultural and contextual lens in evaluation leads to nonresponsive evaluation designs and methods that can generate inaccurate, inappropriate, or even harmful findings.

Tribal governments and Indigenous organizations must often rely upon outsiders and/or a non-Indian person, public agency, or other organization to conduct evaluation work. Currently, there are few Indigenous evaluation scholars trained to participate in evaluation-related activities. Of course, their near absence in the community of evaluation scholars is due in part to their near absence on the faculties of our colleges and universities (Turner, 2002) and in graduate programs that serve as a pipeline for evaluation practitioners and/or scholars. Native Americans are by far the least represented of all racial/ethnic groups in U.S. graduate programs (U.S. Census Bureau, 2012), which helps explain why we lack a sufficient pool of technically and culturally responsive evaluators[4] for and from Indian Country.

Therefore, in these situations, the evaluator for an Indigenous project in an Indigenous context becomes responsible not only for designing the evaluation, but for being a trusted teacher who can help facilitate capacity building with the community being evaluated and the project members carrying out the grant or program being evaluated. A culturally responsive evaluator has the knowledge, skills, and abilities for evaluation but also is intentional and inclusive when selecting and implementing evaluation design and methods based on the cultural and contextual needs of the project, context, participants, and stakeholders.

Defining the cultural/traditional context.

Cajete (1994) reminds Indigenous people to Look to the Mountain for guidance, where the mountain represents traditional Indigenous knowledge. This knowledge is located within the cultural/traditional context, which is equally as important as the political/legal (or formal Tribal government) context. This context includes beliefs, behaviors, and institutions, and is governed by core values and protocols carried out by the community's traditional leaders, elders, and students. It has elements that predate the infl

of European cultures and the assimilation policies administered by colonial and modern America. Despite eff   to colonize Indigenous peoples, their epistemologies in one form or another continue to exist today.

The cultural/traditional context includes formal and informal but traditional teachings and leadership most often held by elders, medicine men or women, linguists, and other knowledge keepers of Tribal history and culture. These are not elected offi   rather, they are leaders dictated by cultural protocols, oral histories, and familial lines. The cultural/traditional context for an Indigenous evaluation design also includes members living on or off the reservation who are not traditional or cultural leaders or elected offi of the Tribal government. Most often these are the members of the Tribal population who coexist daily with others who are engaged in regular community (sociocultural) activities, are the participants in or recipients of Tribal programming and resources, and are responsible for holding accountable the elected and employed members of the Tribal government.

The Indigenous epistemic culture distinguishes between various settings of knowledge production and emphasizes their contextual aspects (Knorr Cetina, 1999); this differs from the Western epistemic culture. The Indigenous protocols around how knowledge is gained, used, shared, protected, and respected must be acknowledged and upheld above all other epistemic cultural protocols. Indigenous epistemic culture is not monolithic; each Indigenous community has a unique way of learning, thinking, and doing; influenced by language, culture, and beliefs, that must be taken into account.

For Indigenous communities, simply measuring outcomes and evaluating what needs improvement is not considered a comprehensive design. Inclusion of process data, documentation of what is working, and including measurements for sustainability after the grant monies are gone or the evaluation study has concluded is considered a balanced approach to evaluation in Indigenous contexts. Therefore, the process of carrying out an evaluation is just as important—if not more so—than the final evaluation products (reports, instruments, presentations, publications, etc.); in other words, the journey is as important as the destination. Both the process and the products of an evaluation study must be sustainable and useful to the Tribal government and community it serves long after the evaluation or research project has been completed.

Components of the cultural/traditional context.

Components of the cultural/traditional context include geographic location; cultural and language protocols; heritage, lineage, and familial relationships; access rights to knowledge and to disseminate that knowledge; and review and endorsement from community cultural/traditional practitioners. All these components inform what cultural information can or cannot be collected and how, in order to produce a version of the community cultural/

traditional knowledge that is valid and appropriate for a broader audience outside of the local Indigenous community. The discussion that follows is not comprehensive, but provides an overview of several of the cultural considerations that must be addressed in the cultural/traditional context.

Access rights to knowledge.

In addition to working with elected Tribal officials or Tribal employees, it is important to also seek out those community leaders, elders, and traditional teachers who uphold informal but powerful cultural protocols. Culturally responsive evaluation in the Indigenous context goes beyond the legal and academic structures of an evaluation by including cultural, linguistic, and other community safeguards that protect Indigenous communities knowledge and data. Providing a traditional gift (which may be tobacco, venison, cloth, or something else, depending on the cultural practices of the Tribal community) as permission or a thank you for considering the evaluation design and participating in the study is an example of a community safeguard. Discussing in advance the proposed study and methods and asking what the community would like in return for participating in and supporting the study are examples of respecting the safety of the community.

In terms of data collection, evaluators must be aware that knowledge is shared in negotiated spaces; for example, information gleaned in a sacred space like a sweat lodge or teaching circle may not be available to or shared with outside investigators and the wider world in the way that information from more public ceremonies or discussions might be. It is worth noting that the protection of Indigenous knowledge has taken on even more significance as the number of industries or commercialized businesses seeking to use biodiversity and the Indigenous knowledge related to it have grown. Given the historical treatment of Indigenous people, incorporating this component into Indigenous evaluation design is critical to building trust with communities who have been and continue to be disempowered, disenfranchised, and decimated by non-Indian policies, organizations, and governments.

Oral versus written knowledge transmission.

Traditionally, for Indigenous people, knowledge development, collection, and transfer are primarily oral processes. Western or European processes for data collection and evaluation privileges statistics and the written word as the principal ways of documenting data, transferring knowledge, or citing evidence in research or evaluation studies. Not only is this a cultural and methodological disconnect, but it also creates capacity, infrastructure, and resource issues for improving the policy process or program impact through evaluation and raises methodological questions. For instance, are oral history methods better suited for assessment and evaluation versus an

online survey? How do linguistic translations from the Native language differ among participants and how does this interpretation impact the evaluation data being collected?

Culturally responsive evaluation in this context does not privilege the written word but understands that oral traditions in Indigenous contexts are often more sacred, respected, and protected than the written protocols. Safeguards can be orally transmitted (Indigenous Peoples Council on Biocolonialism, 2004; Mihesuah & Wilson, 2004; Smith, 2012) but can also be created in writing with shared memorandums of understanding, formally approved IRB or Tribal government protocols, and other human subject protection processes agreed upon by the Indigenous and non-Indigenous participants and organizations. Samples of such protocols and formal agreements can be found by contacting Tribal government agencies and Indigenous scholars, or through checking Indigenous websites from Tribal colleges, Tribal nonprofits, and other Tribal for-profit organizations that conduct regular research in Indian Country.

Social and political status.

Evaluators must remember that context matters and that safeguards vary because Tribal communities, organizations, and governments are not monolithic. The cultural and linguistic practices of each Tribal community (and within families or clans of a Tribal community) dictate political status, social responsibilities through family and clans, and leadership based on matrilineal or patrilineal grounds. Evaluators must understand and address the fact that their own personal characteristics (male or female, insider or outsider, traditional or nontraditional, Native or non-Native, elder or adult, etc.) can all affect the safeguards needed by the Tribal community in a research context as well as the level of access a researcher has within the Indigenous context.

To summarize, cultural context must inform the evaluation design, processes, and methods. Without these knowledge, skills, and competencies, an evaluator will potentially create evaluation studies, use approaches, and generate fi   that are inconsistent, incongruent, and/or are invalid with the Indian people and community that the program is supposed to serve.

Benefits of incorporating the cultural/traditional context.

The incorporation of the cultural/traditional context in the evaluation process is essential to Tribal communities, due to the shared belief or truth that by maintaining, respecting, and continually incorporating the beliefs, protocols, and practices of our traditional Tribal ways we can, "see the world through the eyes of our ancestors and translate the best knowledge of the world into acceptable modern scientific terminology" (Deloria & Wildcat, 2001, p. 28).

This cultural knowledge may inform evaluators of goals, measurable outcomes, and impact indicators that otherwise would not have been foreseen. Using resources available to a culturally responsive evaluator from the cultural/traditional context (in conjunction with the political/legal context and funder requirements) helps to build a comprehensive evaluation design, one that truly reveals and captures the underlying cultural knowledge, challenges, and experiences that influence the lives of Indigenous peoples living in the local and broad community from the Tribal participants who are part of the evaluation.

Recognizing and using elements from a cultural/traditional context is a process for decolonizing (Wilson & Yellowbird, 2005) an evaluation in an authentic attempt to re-write and re-right (Smith, 2012) history and create capacity for better decision-making in the future to benefit Indigenous communities and participants. Responsive evaluation approaches will generate useful program information, authentically engage all participants, and will help to shape future policy and practice that will positively affect the next seven generations.

CULTURALLY RESPONSIVE EVALUATION: A CASE EXAMPLE

In this section of the chapter, we use a case example from our work to illustrate how the culturally responsive Indigenous evaluation strategies, frameworks, and competencies discussed earlier in the chapter can be applied in real-world Indigenous contexts.

Background

In 2005, the Centers for Disease Control and Prevention (CDC) released a funding opportunity, entitled *Health Promotion and Diabetes Prevention Projects for AI/AN Communities: Adaptations of Practical Community Environmental Indicators* (CDC, 2005), NDWP/DDT/NCCDPHP. The funding opportunity was to establish 3-year cooperative agreements within Tribal communities. The program purpose of the CDC grant was to "strengthen local capacity of AI/AN communities in implementing limited, practical community environmental interventions for health promotion and diabetes prevention" (CDC, 2005, p. 29761). It should be noted that this grant did not constitute a research methodology but reflected a public health perspective (CDC, 2008). The Indigenous community in which our work was conducted was one of eight CDC grantees.

Given the unique political/legal and cultural/traditional distinctions of Indigenous people and communities, our evaluations most often use a responsive Indigenous case study design. Case studies address why decisions or strategies were used, how they were implemented, and describes what type of results there were (Schramm, 1971). Research or evaluation in Western contexts is usually experiential, prioritizing the impressions of the observer, standardized measures, and statistical aggregation (Stake, 1986). In contrast, in this instance, the Indigenous project evaluation model incorporated distinct Tribal voices from the breadth of community and the health promotion and prevention project. The evaluation focused on assets, barriers, and the incorporation of traditional teachings into programming, and employed a mixed and multimethod evaluation to the design. Our study design used data collection instruments to collect and confi data throughout the project. Evaluation fi   helped shape data-driven discussions, were used to modi- fy program implementation eff and also annually revealed best practices associated with the most eff program activities. This design allowed continuous program evaluation and built upon the human and infrastructure capacities for future evaluations. A constant and comparative process for analysis was used throughout the evaluation, and continual community member-checking for formative and summative evaluation fi   was employed throughout the evaluation process.

Evaluation Participants

The Indigenous community is a federally recognized Indian tribe occupying a reservation that was established by treaty agreements between the Tribal government and U.S. federal government. The Tribal government operates pursuant to a constitution promulgated under the Indian Reorganization Act, 1934. The tribe's land base exists within the Midwest. The reservation boundaries encompass two townships where approximately 21,000 acres are either held in trust or owned by the tribe. The villages closest to the reservation have a population no greater than 600 residents. Moderate-to-large urban Indian communities that have impact on social and economic conditions of the tribe are located 60–170 miles away. Like many tribes, this Indigenous community was displaced from the ancestral territory, which they inhabited for millennia, by colonial forces. Losing Tribal lands and ways of life that depended on them resulted in a culture shift away from a long-established economy and system of governance that was elaborate and complex.

Fewer than 3,000 people live within the reservation boundaries. Demographics from the 2010 Census noted an unemployment rate of 14.6% on the tribe's reservation. The median household income level in 2009 was

$36,908. For female full-time year-round workers, the median earning level was $23,917; for male full-time year-round workers, the median earning level was $28,365. The average per capita income was $15,272. According to the 2010 U.S. Census, 15.1% of Tribal families living on the reservation lived in poverty in 2009; all of these families had children under age 18.

Case Study Evaluation Design

The four project goals of the CDC grant for this particular grantee were to assist the community in identifying, implementing, and evaluating environmental health interventions for youth; assist youth in establishing lifelong healthy nutrition and physical activity behaviors; involve parents in all aspects of the proposed program; and impact and positively influence the community for establishing lifelong healthy eating and physical activity behaviors through programs, activities, and environmental changes (policies). In order to evaluate this project, we used the following culturally responsive Indigenous evaluation methods.

Community collaborations.

Self-determination respects, recognizes, and values the inherent worth of Indian culture; is responsive to the community's needs as voiced by all members of society; builds programs around Indian assets and resources; and employs Indians in every part of the process including, program, policy, implementation, and evaluation. Based upon this foundation, we moved forward with co-planning our evaluation with the key assumption that everyone shares responsibility for achieving positive community wellness. Our evaluation process honored and incorporated the value of self-determination in several ways.

Before the evaluation research began, evaluators and participants worked together to create a culturally relevant evaluation plan in a dialogue and brainstorming process that honored the "seven-generations" teachings of including elders', community members', and youth perspectives as we consider how current actions and behaviors impact future generations. Rather than imposing outside data collection methods upon the community, we asked community members to help identify existing data sources (e.g., agendas, media releases, community center sign-in sheets, etc.) to use in our evaluation as a community collaboration and means to consensus-based decision making. Monthly work and advisory meetings with project participants continually revisited how program implementation was meeting or not meeting the self-identified needs of the community resulting in a flexible evaluation design that continued to address real-life issues through realistic and locally viable solutions.

The evaluator and project stakeholders worked together to jointly communicate successes and involve local schools, community organizations, and other Tribal governmental offices and programs. Communicating successful outcomes with Tribal and community partners leveraged more growth, secured shared resources, and strengthened sustainable program efforts for continuing positive changes and programming long after the grant ended. For example, grant work done to upgrade ballfields inspired local government spending on upgraded fencing around the fields as well as new uniforms for ballplayers. When new playground equipment was installed at the at pow wow grounds, the Tribal Roads and Planning Department contributed extra funds for wood chips for the playground area.

Cultural relevance.

Ensuring that evaluations are culturally relevant allows communities to heal, strengthen, and preserve Indigenous societies now and for the next seven generations. Our evaluation process honored the unique culture and traditions of this community in many ways. We began the evaluation process by approaching elders and community leaders with appropriate gifts (in this case, tobacco and traditional foods like venison and berries) as we asked their permission to begin and for their help in this project.

In particular, we ensured that our evaluation used culturally appropriate data collection methods and instruments. As discussed above, we worked with the program participants to identify existing data sources that meet evaluation needs rather than imposing our own measurement methodology. Where we did identify data collection gaps, we worked together with community members to find new, culturally relevant ways to collect data. For example, students in the community who participated in the collaborative process identified themselves as "data warriors" (a culturally resonant term) and brainstormed ways to gather needed data, including collecting local restaurant menus and taking pictures of vending machines used in the community to document their contents. "Pow wow pedometers" measured the number of steps taken and calories burned by fancy dancers versus traditional dancers at ceremonies. These data collection methods and instruments quantified healthy behavioral changes and involved participants in a way that honored the principal of "working with" rather than "working on." These data collection methods were unique to the grantee but also became an opportunity to expand Indigenous knowledge and understanding from the funders' perspective.

As the grant program continued, evaluators worked with participants to identify ways that program elements could be culturally relevant and meet program goals. New policies were created around traditional food use and access. Participants worked to acquire ancestral food knowledge and incorporate traditional healthy food into daily menus as well as special

social-cultural events like pow wows, field trips, and ceremonies. Student data collectors, their families, and actively engaged project participants influenced policy around healthy choices in community center vending machines and food provided at community center events. The goal of all program elements was to incorporate healthy lifestyle choices in ways that were culturally relevant and sustainable after the CDC program concluded.

Dissemination.

Sharing knowledge and respect for Indigenous knowledge rights is another key component of culturally responsive evaluation. At each stage of the project implementation and evaluation process, evaluators worked to communicate program status to participants and to listen and respond to participants' ideas and concerns. Monthly work and advisory meetings ensured that information was shared for decision making, assessing impacts, and for making project or program modifications in an ongoing process. Our evaluation team worked to share project data with the wider community in multiple formats. We were sure to encompass the oral dimension of Indigenous knowledge sharing in meetings, presentations, traditional talking circles, and participation in community events. Project staff prepared reports for the local Tribal government, school district boards of education, in the Tribal newspaper, on the Tribal website, and the national funding agency on a quarterly to semiannual basis. One program element was monthly demonstrations showing how to make Indigenous and traditional food in healthier ways; another was a cookbook that highlighted new knowledge about healthy traditional foods. Visual formats, such GIS mapping related to the project, as well as project photographs, helped tell the story of this project to the community. We also used more traditional Western practices, such as sharing information through non-Tribal newsletters, press releases, and written reports to communicate with the project participants and the wider community. Open communication within the Tribal community helped shape new choices in Tribal programming, Tribal recreation center menus, and through the local school's health curriculum and cafeteria menus.

With careful and respectful consideration of the appropriate use and sharing of knowledge in this context, we worked with participants to share our findings with the wider public. Co-authored reports and presentations by Tribal and non-Tribal organizations and staff members increased trust, built relationships, built capacities for technical reports and presentations, and gave credibility to and shared responsibility for the evaluation study findings. The data was used in further grants, collaborative programming, and leveraging additional resources to carry out health initiatives extending to Tribal and non-Tribal schools, restaurants, parks, and other communal spaces or contexts.

This example of a culturally responsive evaluation demonstrates how evaluators can empower Indigenous communities and individuals through evaluation by honoring traditional knowledge, making evaluation useful to community needs, and by respecting Indigenous ownership of evaluation data.

DISCUSSION

"Indiginizing" Evaluation

As illustrated by the case study above, culturally responsive evaluation can help build capacity throughout the evaluation process if empowerment (Fetterman, Kaftarian, & Wandersman, 1996), Indigenous, (Bowman, 2006a; Denzin, Lincoln, & Smith, 2008; Kovach, 2010; LaFrance & Nichols, 2009; LaFrance et al., 2012; Mertens & Cram, 2013; Smith, 2012), and utilization focused (Patton, 2012) approaches are used.

Table 16.1 demonstrates how we transform the seven steps of colonialism as defined by Frideres and Gadacz (2000) to create a more culturally responsive case design and process for conducting Indigenous evaluations.

Progress Toward Culturally Responsive Evaluation in the Indigenous Context

Currently, few Tribal governments or Indigenous organizations use evaluation data as an effective tool for shaping Tribal or multijurisdictional public policy, making budgetary decisions, and/or to drive programmatic decision making. In any work toward this goal, the tenets of trust, data ownership, and sovereign rights of Tribal people on or off the reservation need to be part of a concerted dialogue by all parties (Tsosie, 2007). Building this capacity will require a significant investment in time and money for restructuring, building infrastructures (technology, data collection systems, creating ordinances, policies, etc.), providing staff development, and supporting organizational development to carry out new ordinances, policies, and procedures across Tribal government or Indigenous organizations and systems. The scope of training, technical assistance, and interfacing of Indian and non-Indian governments, systems, and programs needed to develop common evaluation policy, culturally responsive evaluation designs, and data collection or sharing systems is staggering. But without evaluation capacity building within, across, and outside of Indian Country, the pattern of long-term educational, economic, health, and other disparities that Indian people have endured will likely continue.

TABLE 16.1   Indigenizing Evaluation

Seven Steps of Colonialism (Frideres & Gadacz, 2000)	Seven Steps to Decolonialize and Indigenize (Bowman, 2007a)
1. Uninvited arrival of colonizers into territory	1. Utilization of a traditional knowledge council and community elders work together in the community
2. Destruction of Indigenous social and cultural institutions	2. Use of traditional knowledge (oral and written), Indigenous institutions, and non-Indian organizations if endorsed by Tribal community as a process to add to local Indigenous knowledge base
3. Creation of economic dependency of Indigenous people on colonizers	3. Providing traditional gifts as part of the evaluation process for allowing me to work in the community and for their participation in the research
4. Establishment of external political control	4. Indigenous intellectual knowledge, approval of evaluation, and ownership of data by Tribal community is controlled by Indigenous community and is formalized through memos of understanding with researcher and research organization
5. Provision of low level social services	5. Evaluation data provides information to inform and improve local services being provided by Tribal and non-Tribal governments for Indigenous community members
6. Use of a color line; i.e., racism, to justify the above	6. Critical examination by an external traditional knowledge council and participants to prohibit racism, end colonist practices in evaluation, and promote the value and use of Indigenous knowledge and processes
7. Weaken the resistance of the Indigenous people	7. Empower Indigenous communities and individuals through evaluation by honoring traditional knowledge, making evaluation useful to community needs, and through Indigenous control/ownership of evaluation data

Despite challenges, we see hopeful progress toward more culturally responsive evaluation practices. Tribes, along with many professional and political support organizations like the National Congress of American Indians (NCAI), Native American Rights Fund (NARF), and Tribal Education Departments National Assembly (TEDNA), have politically engaged state and federal government systems and non-Indian organizations to help address capacity issues. For instance, NCAI, NARF, and TEDNA have worked with non-Indian governments and organizations to help develop Tribal policy, facilitated Tribal consultation sessions with non-Tribal governments, and have convened training and technical assistance sessions. An increasing number of tribes are moving proactively to create their own IRBs under the Department of Health and Human Services, Code of Federal Regulations, Title 45 Public Welfare, Part 46 Protection of Human Subjects, which was first issued in 1974 (Department of Health and Human Services, 2009). These federal, tribal, and other international (UN, 2008) ordinances, policies, and guidelines in promoting and designing culturally responsive

evaluation approaches can be used to move us toward addressing current low capacity and resource issues as well as building a stronger empirical literature base for academia.

To broaden the pool of culturally responsive Indigenous evaluators, varying levels of collaboration are essential to ensure current and future programming growth for the inclusion of Indigenous evaluators and to fill the publication gaps in evaluation literature and academic studies. There are long- and short-term impacts to be considered: creating a formal plan, task force, or coalition of like-minded colleagues in combination with Tribal colleges, Tribal governments, and other Tribal organizations (nonprofit or corporate) would be a good way to begin this journey.

For Tribal communities, culturally responsive evaluation models and practices have heightened the awareness of bridging cultural context issues of Native/non-Native, federal/self-governance, Western/Indigenous epistemology and consideration of the evaluators' own world perspective. It is critically important that Tribal governments and Indigenous organizations have the right, ability, and responsibility to adapt and use their cultural knowledge; the power to create ordinances, policies, and protocols for intellectual and cultural protection, preservation, and monitoring of evaluation projects; and the authority to establish, implement, and hold accountable the use of standardized measures for program effectiveness and services to create political and cultural norms that are reflective of their people on and off the reservation.

As Tribal communities move forward into the world of program evaluation, a hybrid model of Westernized institutional structures and an authentic culturally responsive system should be the goal. As in many transformations, the question that usually surfaces is "How does the angst of acculturation stay balanced and true to American Indian ideologies?" (Dodge Francis, 2009, p. 87). The impact of academia, evaluators, and community partnerships outside of Tribal communities will play a significant role in defining, shaping, and supporting the contextual framework of evaluation methodology, implementation, and outcomes of an evaluation approach selected within a Tribal setting. Tribal communities must not lose sight of the quest to create or attain a culturally responsive evaluation system that embraces their hegemonic ability to dictate the mission, infrastructure, or organizational framework. This does not always come easily or overnight given the challenges noted earlier in the chapter.

In conclusion, this chapter synthesizes available Indigenous evaluation theories, knowledge, and frameworks in combination with evaluation resources provided to us from other disciplines and non-Indigenous sources. We do this with the hopeful vision of "continuing the journey." Our work and that of others, both named and unnamed in our chapter, inspires us to be part of the work of building the theoretical and empirical basis of

Indigenous evaluation. We will continue to "position" ourselves as professionals working toward a deeper academic base for Indigenous evaluation with the help of our evaluation community, colleagues, and friends. In the natural time and process, we look forward to how we may eventually "reposition" ourselves as we continue on the journey to construct, deconstruct, practice, and learn more deeply about the Indigenous footprint for evaluation theory and practice. It is our prayer that together we may continue walking this good path. *Anushiik*.

AUTHOR NOTE

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NOTES

1. We use multiple terms in this chapter for describing Native Americans or Native American communities. Indigenous is used as a general term; it is also used interchangeably with Indian, Native American, American Indian, First Nation, by naming a specific tribal affiliation or languages, and/or via other Indigenous phrases as we deemed appropriate or as noted within cited source materials.
2. Colonization is when an alien people invade the territory inhabited by people of a different race and culture and establish political, social, spiritual, intellectual, and economic domination over that territory (Yellow Bird, 1999). Colonization is a political act that marginalizes Indigenous people (Adams, 1997).
3. The expression "seven generations" is a widely accepted Indigenous cultural understanding. This metaphor refers to a sustainability theory based upon ancient epistemology shared among multiple Woodland and Indigenous Nations (Benton-Banai, 1988; Bergstrom et al., 2003). The seven generation model argues that leadership, communities, and individuals need to be mindful that decisions they make affect the livelihood of all future generations (Dumont, 1996), including humans, animals, and plants. (LaDuke & Alexander, 2004). The model also advocates for leadership to take actions that sustain best practices in governance (Williams & Works, 2007) in order to ensure wellness for all in creation.
4. We deliberately chose the term "culturally responsive evaluator" versus "culturally competent evaluator." An evaluator may be culturally competent but may not always choose to be responsive when conducting Indigenous evaluations.

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CENTER FOR
DEMOCRACY
& TECHNOLOGY

February 9, 2021

Advisory Committee on Data for Evidence Building
Via regulations.gov

Re: Request for Comments for the Advisory Committee on Data for Evidence Building

The Center for Democracy & Technology (CDT) submits these comments to highlight steps the Advisory Committee on Data for Evidence Building should take to help bolster the equitable provision of government services, community trust in federal data, and individual and organizational privacy. Coordinated, data-driven action across interdependent agencies is essential to providing vital services. Data can help reveal inequitable access to services and data, support steps to increase economic mobility, and raise under-explored questions about the role of race and racism in the design and implementation of government programs and policies. CDT believes that comments led by the Annie E. Casey Foundation in this Docket succinctly summarize the value of the Advisory Committee's work.

However, data use also poses risks to individual and organizational privacy and autonomy, and CDT urges the Advisory Committee to commit to principles of responsible data governance, stakeholder engagement, equity, and transparency in federal agencies' collection and use of data.

Responsible Data Governance
In order to promote equity and protect privacy, the Advisory Committee should ensure that federal evidence building is supported by responsible data governance. Data governance is "the overall management of data, including its availability, usability, integrity, quality, and security,"[1] and includes people, processes, and structures that are responsible for data and technology. The Advisory Committee should ensure that federal evidence building incorporates key ethical data practices such as the recommendations of the Commission on Evidence-Based Policymaking.[2] Such practices should include:

- *Data minimization:* Agencies should collect, use, retain, and share only the data required to fulfill a clear and specific purpose, so as to minimize the risks from unauthorized access or use of data out of context. Additionally, secure and appropriately limited data sharing and user access can assist in data minimization by

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[1] Corey Chatis and Kathy Gosa, Communicating the Value of Data Governance, SLDS Issue Brief (2017).
[2] Commission on Evidence-Based Policymaking, The Promise of Evidence-Based Policymaking (2017).

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ensuring that the same data is not collected and stored multiple times for different purposes.[3]

- *Data ownership:* Defining who has the ultimate control, responsibility, and legal rights over the data is an important decision that is best made early and documented in formal agreements between the agency, the data source, and recipients of the data.[4]
- *Data retention, storage, and deletion:* Agencies should establish transparent rules and processes to ensure secure storage and retention periods that are no longer than necessary for the purpose for which the data is processed to minimize the risks that come with amassing unnecessary data.[5]
- *Data sharing:* Agencies will need to consider whether sharing is appropriate, necessary, and consistent with users' expectations and will need to develop clear policies that govern the roles, responsibilities, and processes for sharing. This includes requirements around access, privacy, storage, use, and deletion.[6]
- *User access:* Limiting user access to only individuals who have a clear need for the data can help agencies ensure privacy protection and minimize the likelihood of inappropriate data access or misuse.[7] As the Commission on Evidence-Based Policymaking recommended, the Advisory Commission should consider adopting a "tiered-access system" to limit user access to data based on sensitivity,[8] requiring risk assessments for public disclosures,[9] and establishing disclosure review boards.[10]
- *Data quality:* Agencies have an ethical obligation to ensure the accuracy of the data they use. Otherwise, any insights gleaned from that data or actions taken based on that data may be misguided and do more harm than good. Agencies should consider adopting mechanisms for users to view and request the correction and deletion of information held about them.
- *Documentation:* To provide transparency and accountability, agencies should document their policies and procedures for data collection, data use, data sharing with vendors and other third parties, and decision-making based on the data.[11]

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[3] Joanna Grama, Protecting Privacy and Information Security in a Federal Postsecondary Student Data System (2019).

[4] Brian Bollier, The Promise and Peril of Big Data (2010).

[5] White House Big Data and Privacy Working Group, Big Data: Seizing Opportunities, Preserving Values (2015).

[6] John Fantuzzo et al., The Integrated Data System Approach: A Vehicle to More Effective and Efficient Data-Driven Solutions in Government (2017).

[7] Omer Tene and Jules Polonetsky, Big Data for All: Privacy and User Control in the Age of Analytics, 11 Northwestern Journal of Technology and Intellectual Property 240–72 (Apr. 2013).

[8] Commission on Evidence-Based Policymaking, *supra* note 2, at 41.

[9] *Ibid.* at 61.

[10] *Ibid.* at 50.

[11] Joel Reidenberg et al., Privacy and Cloud Computing in Public Schools, FLASH: The Fordham Law Archive of Scholarship and History Book 2 (2013).

The Commission on Evidence-Based Policymaking also envisioned establishing the National Secure Data Service (NSDS) for temporarily linking existing datasets, which would be governed by a Steering Committee composed of diverse stakeholders with an established process for assessing requests for linking datasets.[12] The Commission also recommended that disclosures from federal data be subject to "strict data minimization techniques to ensure researchers accessing combined data will use datasets with as much information removed as is possible while still meeting the research need. When two or more datasets will be combined, only a narrow group of qualified and trained employees will have access to direct identifiers to conduct the linkage."[13] Regardless of whether the NSDS is eventually established, the Advisory Committee should ensure that there are clear structures for responsible data governance.

Stakeholder Engagement

As noted in the comments led by the Annie E. Casey Foundation, it is essential that the Advisory Committee engage stakeholders whose data is being collected and who utilize the services supported by that data. Data and technology initiatives benefit from diverse perspectives, surfacing potential problems and developing frameworks that work for a broad cross-section of users. Stakeholder engagement will also increase buy-in and trust in how data and technology are used, which can increase faith in federal data more broadly. Moreover, agencies are more likely to encounter pushback on how data is being used if they do not engage stakeholders. In the event of a breach or other issue, stakeholders are more likely to be understanding if they had buy-in at the outset, seeing firsthand that meaningful steps were taken to put protections in place.[14] Stakeholder engagement can range from informational to advisory, or even to giving stakeholders decision-making authority, depending on the topic and capacities involved.

Equity

Data and technology provide potential benefits to individuals as well as the public good. However, these benefits will only be realized if the collection, analysis, and use of data are designed intentionally to meet these goals and minimize potential bias. To this end, it is important that the Advisory Committee identify and address the ways in which data and technology use could inadvertently create, entrench, or worsen inequities or have other unintended consequences.

Certain data practices may create inequities in policymaking if the data elements are biased, and including those data elements in analyses may bias the outcomes towards (or against) particular groups. For example, in education, students of color are disciplined at a greater rate than their peers (both in terms of number of infractions as well as the severity of

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[12] *Ibid.* at 81-84.

[13] *Ibid.* at 40.

[14] Ben Green and Lily Hu, The Myth in the Methodology: Towards a Recontextualization of Fairness in Machine Learning, in Machine Learning: The Debates Workshop at the 35th International Conference on Machine Learning (2018).

consequences), so using discipline data in certain analyses could result in the over- or under-identification of students of color, which could negatively affect their outcomes. Alternatively, using data from a non-representative sample and then applying the findings to the broader population can result in practices or policies that are not beneficial for certain populations within the broader community.[15]

The Advisory Committee should also consider other equity issues that can arise from the use of data and technology, especially the way an agency's authority to grant or deny benefits may influence an individual's willingness to exercise their data rights. If an agency that has the authority to grant or deny benefits is the same agency that controls an individual's data, the individual may lack the power or comfort to request access to, correct, or delete their information or to push back if their requests are not honored.[16]

Lastly, emerging technologies have the potential to exacerbate bias. For example, predictive analytics, particularly when machine learning is utilized, can significantly increase inequitable outcomes if bias is not accounted for in their design and evaluation.[17] For example, as noted above, students of color are disproportionately disciplined at a greater rate than their peers, so early warning systems that use discipline data to predict whether a student is on track or at risk of dropping out of school will identify more students of color.

Transparency & Secondary Data Uses
The Advisory Committee should seek to ensure transparency at all stages of the data lifecycle, from collection through analysis and use, to support data quality, create trust, and establish buy-in. Transparency is a broad concept but should cover, at minimum, data collection, use, storage, and decision-making. Specifically regarding decision-making, transparency includes visibility into how decisions are being made based on data, including methodology, decision-making processes, and the underlying data itself.

Transparency is a particular concern in evidence-based policymaking, when data may be re-used for additional purposes beyond the original intended use, potentially diverging from the scope of what the data subject was notified of or consented to. Secondary data use can become an issue with any data that is collected, including:
- Data that was collected for informational purposes and then is used for decision-making;
- Data that was originally not going to be shared with outside agencies, but then is shared externally;
- Data that was collected to support the individual but then is used for a collective purpose such as research; or

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[15] Andrea Alarcon et al., Data & Civil Rights (2014).
[16] Randy Bean, A Rising Crescendo Demands Data Ethics and Data Responsibility, Forbes (Oct. 29, 2018).
[17] Andrew Cormack, A Data Protection Framework for Learning Analytics, Journal of Learning Analytics (2016).

- Data that was collected, aggregated, and used for systemic decisions but is then disaggregated and used to make decisions about individuals.

Secondary data use is especially pertinent to research and open data. Data is often collected across fields to track and support individual outcomes (e.g., test scores, health screenings), but may also be helpful for research to support the broader sector. Often, these research projects have not yet been identified at the time of the data collection, so consent can be difficult or impossible to collect. In some cases, de-identified or aggregate data could be used for research purposes and may pose less of a privacy risk, but de-identification must be done carefully by someone with proper training to minimize the risk that the data is re-identified, thus exposing the individuals to privacy loss, financial risk, or other harms.

Secondary data uses may have a particularly pronounced impact on underserved or marginalized communities. For example, in Pasco County, Florida, children's school records were shared with law enforcement without parental consent to create a "predictive policing" system.[18] That system incorporated school data, including discipline records, to identify "students who are at-risk of developing into prolific offenders."[19] As in many school districts, Black students and students with disabilities in Pasco County are twice as likely to be disciplined, which may increase their exposure to law enforcement due to the district's data sharing.[20]

The Evidence Act[21] already has some limitations on secondary uses, ensuring that "[d]ata information acquired by an agency under a pledge of confidentiality and for exclusively statistical purposes shall be used by officers, employees, or agents of the agency exclusively for statistical purposes and protected in accordance with such pledge."[22] The Act similarly prohibits "nonstatistical uses" of such data, including for "any administrative, regulatory, law enforcement, adjudicatory, or other purpose that affects the rights, privileges, or benefits of a particular identifiable respondent."[23] The Advisory Committee should ensure that federal evidence building adheres to that functional distinction. It should likewise provide guidance on responsible data governance, stakeholder engagement, and equity to guide agencies in determining whether they have a legal and ethical basis for secondary uses of data.

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[18] Neil Bedi & Kathleen McGrory, Pasco's Sheriff Uses Grades and Abuse Histories to Label Schoolchildren Potential Criminals, Tampa Bay Times (Nov. 19, 2020), https://projects.tampabay.com/projects/2020/investigations/police-pasco-sheriff-targeted/school-data/.

[19] *Ibid.*

[20] *Ibid.*; *see also* F. Chris Curran, 'Early warning' Systems in Schools Can Be Dangerous in the Hands of Law Enforcement, The Conversation, https://theconversation.com/early-warning-systems-in-schools-can-be-dangerous-in-the-hands-of-law-enforcement-152701.

[21] Foundations for Evidence-Based Policymaking Act of 2018, Pub. L. No. 115-436, 132 Stat. 5529 (2019).

[22] 44 U.S.C. § 3572(b).

[23] 44 U.S.C. § 3572(d); 44 U.S.C. § 3561(8).

CDT applauds the efforts of the Advisory Committee and agencies across the federal government to use data ethically and equitably. We believe that evidence-based policymaking can be used to create more equitable government services while protecting individual and organizational privacy. We look forward to working with the Advisory Committee as it further considers these issues.

Sincerely,

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February 9, 2021

From: Joel Gurin (President) and Matt Rumsey (Research and Communications Manager), the Center for Open Data Enterprise (CODE)
To: The Advisory Committee on Data for Evidence Building

Proposing a Federal Office of Public Data Engagement

Comments for the Advisory Committee on Data for Evidence Building. RE: Document 2020-27489

Introduction

This document is being submitted by the Center for Open Data Enterprise (CODE) to provide comments for the Advisory Committee on Data for Evidence Building in reference to docket #2020-27489.[1] It specifically suggests ways "to promote transparency and facilitate public engagement with the evidence building process," and addresses question 10 in the Federal Register notice: "What basic public data services are essential for a data service to address existing capacity gaps and needs? What infrastructure or incentives can the Federal government create that locals and states cannot?"[2]

The Center for Open Data Enterprise (CODE) *proposes that the White House Office of Management and Budget (OMB) establish an Office of Public Data Engagement* with the following mission:

The Office of Public Data Engagement (OPDE) will ensure that the Federal government prioritizes the collection, management, and publication of its diverse data resources to directly meet public needs, as determined by ongoing engagement with the organizations, businesses, and state and local governments that use Federal datasets.

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[1] https://www.opendataenterprise.org/

[2] https://www.federalregister.gov/documents/2020/12/15/2020-27489/request-for-comments-for-the-advisory-committee-on-data-for-evidence-building

This document describes the need for this office, the statutory basis for establishing it, and its proposed authority and responsibilities. The OPDE will promote transparency and facilitate public engagement with the evidence building process by providing a centralized office where members of the public, organizations outside of government, and state and local governments can engage with Federal partners around issues of data use. The OPDE will serve as essential organizational infrastructure to boost agency stakeholder engagement capacity. Through that work, it will help non-Federal stakeholders identify opportunities to use Federal data and improve Federal data sources.

Background

The Open Data movement, which emerged around 2010, has advocated continuously for governments at all levels to publish the data they collect and manage in accessible and usable forms.[3] Open data is being applied in myriad ways around the world, and the U.S. has been an early and consistent leader in committing to open data at a national level.[4] President Obama set the stage when he issued a Memorandum on Transparency and Open Government on his first day in office.[5] His administration followed up with the 2013 Open Data Policy, which set out guidelines for agencies to publish their data in a widely applicable manner.[6] The Trump administration developed the Federal Data Strategy, which includes open data as a centerpiece of its goal to "leverage data as a strategic asset."[7]

Perhaps most significantly, Congress passed the Foundations for Evidence-Based Policymaking Act (the "Evidence Act"), signed into law in 2019, which requires Federal agencies to develop and publish their plans for open data implementation. The Advisory Committee on Data for Evidence Building ("Advisory Committee") exists as a direct result of the Evidence Act.[8]

The concept of open data is simple: It has been defined as "data that can be freely used, re-used and redistributed by anyone."[9] But the implications are huge. Open data from national, city, and state and provincial governments is a powerful tool for government transparency and accountability, for scientific research, and for economic growth. This data is critical to both public and private efforts to improve healthcare, infrastructure, the environment, education, agriculture, and other essential sectors.

Through implementation of the Evidence Act and the Federal Data Strategy, strides have been made to embrace data use throughout the Federal government. However, more needs to be done to "promote transparency… facilitate public engagement with the evidence building process," and ensure that open government data is useful for and used by the public.

While the Federal Data Strategy and Evidence Act provide a strong basis for open data progress, these policies are missing a critical piece: A formal, ongoing, and effective process for ensuring that Federal data programs meet public needs. Since 2015 the Center for Open Data Enterprise (CODE) has worked

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[3] https://apolitical.co/en/solution_article/the-first-decade-of-open-data-has-been-a-win-but-not-for-the-reasons-you-think

[4] https://opendataimpactmap.org/index

[5] https://obamawhitehouse.archives.gov/the-press-office/transparency-and-open-government

[6] https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/memoranda/2013/m-13-13.pdf

[7] https://strategy.data.gov/

[8] https://www.govinfo.gov/content/pkg/PLAW-115publ435/pdf/PLAW-115publ435.pdf

[9] https://opendatahandbook.org/guide/en/what-is-open-data/

with the White House and more than a dozen Federal agencies to bring Federal data providers together with their data users to improve their data programs.[10] We have consistently found that Federal agencies need robust, programmatic stakeholder engagement to ensure that their data programs serve the public good as effectively as possible.

To fill this gap, CODE is proposing that the White House Office of Management and Budget establish a new Office of Public Data Engagement within OMB with the authority to:

1. Identify gaps and challenges in Federal data resources that are not meeting public needs.
2. Identify needs for Federal data from state and local governments.
3. Support individual agencies in engagement to identify and meet public needs for their data.
4. Coordinate and support cross-agency efforts to address public data needs.
5. Organize and publicize use cases on the public application of Federal data.
6. Establish a permanent Advisory Council on Public Engagement to represent public needs for Federal data.
7. Coordinate with other Federal offices and committees whose work relates to the mission of the OPDE.

Statutory Justification for Creating an Office of Public Data Engagement

Both the Federal Data Strategy and the Evidence Act emphasize the importance of public engagement in implementing the Federal government's open data policies. There has already been strong public engagement around the implementation of both the Strategy and the Evidence Act. OMB has held a number of public information and input sessions on the implementation of the Federal Data Strategy, sometimes in collaboration with nonprofit organizations such as the Data Coalition.[11] The Department of Commerce also published a Request for Comment and hosted public forums to gather feedback on an initial draft of the FDS Principles, which drew close to 100 public comments.[12] The Advisory Committee on Data for Evidence Building itself, to whom this proposal is addressed, embodies a commitment to engage public input to implement the Evidence Act during the Committee's two-year charter.

These valuable programs for public engagement have focused on the overall implementation of the Federal Data Strategy and the Evidence Act. However, these efforts have not engaged the public to help shape the *content* of Federal data programs, since they have focused instead on public input into the *process* for policy implementation. A different kind of public engagement will be essential to ensure that Federal data is collected, managed, and published to directly meet public needs, and to provide the information that data users consider most valuable. We propose that a new Office of Public Data Engagement (OPDE) be established to lead such a government-wide effort.

The language of the Evidence Act provides justification for establishing the OPDE. The Evidence Act states that "In developing the plan required under subsection (a) [which requires agencies to develop evidence-building plans], the head of an agency shall consult with stakeholders, including the public,

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[10] https://www.opendataenterprise.org/
[11] https://www.datacoalition.org/event/public-forum-action-items-for-implementing-the-federal-data-strategy/
[12] https://strategy.data.gov/background/

agencies, State and local governments, and representatives of non-governmental researchers."[13] The Act also directs agencies to assess "the cost and benefits to the public of converting a data asset into a machine-readable format that is accessible and useful to the public," and to "develop and maintain a strategic information resources management plan that [will] facilitate collaboration with non-Government entities (including businesses), researchers, and the public for the purpose of understanding how data users value and use government data."[14]

Further, agencies are directed to "designat[e] a point of contact within the agency to assist the public and to respond to quality issues, usability issues, recommendations for improvements, and complaints about adherence to open data requirements within a reasonable period of time."[15] To that end, agencies are directed to "engage the public in using public data assets of the agency and encourage collaboration by…providing the public with the opportunity to request specific data assets to be prioritized for disclosure and to provide suggestions for the development of agency criteria with respect to prioritizing data assets for disclosure..."[16]

While these directives in the Evidence Act are on point, most Federal agencies will face a major challenge in carrying them out. Federal agencies vary widely in their experience with public stakeholder engagement and their understanding of public data needs. The Evidence Act could have the unintended consequence of requiring the 24 Chief Financial Officers Act agencies, who are subject to the Evidence Act, to each figure out for themselves how to carry out the difficult task of public engagement, with considerable effort and no guarantee of success.

The OPDE will not be a substitute for the public engagement that individual agencies need to conduct, but will play a critical role in helping to organize, guide, and support those cross-governmental efforts. By establishing best practices, providing tools, and identifying high-priority areas of opportunity, the OPDE will make it much easier for Federal agencies to fulfill the requirements of the Evidence Act. At the same time, the practices established by the OPDE will demonstrate a government-wide commitment to meaningful public engagement to improve and apply the nation's essential data resources.

Unique Authority and Responsibilities for the Office of Public Data Engagement

We propose that the Office of Public Data Engagement (OPDE) be established within OMB with a mission that is unique in the Federal government:

The Office of Public Data Engagement (OPDE) will ensure that the Federal government prioritizes the collection, management, and publication of its diverse data resources to directly meet public needs, as determined by ongoing engagement with the organizations, businesses, and state and local governments that use Federal datasets.

To fulfill this mission, the OPDE will be authorized to do the following.

1. *Identify gaps and challenges in Federal data resources that are not meeting public needs.* These may include gaps in the data that Federal agencies are collecting; issues of data quality,

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[13] https://www.govinfo.gov/content/pkg/PLAW-115publ435/pdf/PLAW-115publ435.pdf, page 3
[14] Ibid, 8
[15] Ibid, 8
[16] Ibid, 9

timeliness, interoperability, standardization, or other issues that reduce the value of the data; problems in data availability and accessibility; or other concerns. The OPDE will focus on data issues and needs that go beyond any single agency, as described below. The OPDE will be authorized to use a variety of methods to identify these gaps, such as:

   a. *Conducting surveys* of groups or organizations that use Federal data
   b. *Holding roundtables and workshops* to convene Federal data providers with their data users, similar to the convenings that CODE has held over the [past six years](#).[17]
   c. *Creating a public website and forum* to identify public needs for Federal data, gather feedback on challenges in using Federal datasets, and promote public-private collaboration to improve data resources.
   d. *Conducting public gatherings*, such as "data town halls," to engage directly with interested communities and individuals on federal data programs.

2. *Identify needs for Federal data from state and local governments.* In a recent study from the IBM Center for the Business of Government, one data expert was quoted as noting that "It is currently no one's job in the Federal government to understand the challenges that state and local governments face in harnessing data, analytics, and evaluation to improve the impact of funding they receive from hundreds of Federal grant programs." As the report goes on to explain, "a major source of insight for Federal agencies would be to listen to the data needs and challenges of state and local government…."[18] Some agencies have established processes and offices to coordinate their data programs with those of state and local governments, such as the U.S. Department of Transportation, which [reaches out](#) to state and local governments on an ongoing basis around data exchange, and the [Office of the National Coordinator](#) for Health Information Technology in the U.S. Department of Health and Human Services, which supports "the promotion of a nationwide health information exchange to improve healthcare."[19] The OPDE can provide guidance, tools, and strategies necessary to help all agencies work with their state and local stakeholders.

3. *Support individual agencies in engagement to identify and meet public needs for their data.* The Evidence Act directs the Office of Government Information Services (OGIS) to *"develop and maintain an online repository of tools, best practices, and schema standards to facilitate the adoption of open data practices across the Federal Government."* In a different but complementary way, the OPDE will develop and maintain a toolkit and best practices that agencies can use for public engagement around their data programs. The OPDE will work closely with Chief Data Officers through the Federal CDO Council to support their data sharing plans and agency-wide visions with broader public engagement that can help identify their high-value data assets.

4. *Coordinate and support cross-agency efforts to address public data needs.* Cross-agency collaboration will be needed to provide essential data, and support data-driven solutions, for major public problems. The Biden administration, for example, has established an [Equitable Data Working Group](#) as part of Executive Order 13985, to identify inadequacies in existing Federal data collection programs, policies, and infrastructure across agencies and support

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[17] https://www.opendataenterprise.org/what-we-do#roundtables
[18] http://www.businessofgovernment.org/sites/default/files/Silo%20Busting.pdf Page 48
[19] https://www.healthit.gov/topic/about-onc

agencies as they expand and refine available data to measure equity.[20] As another example, CODE's work with HHS has identified a number of agencies that hold data on the social determinants of health, which is critical to addressing the COVID-19 pandemic, including the U.S. Census Bureau, the U.S. Environmental Protection Agency, and the U.S. Departments of Agriculture, Health and Human Services, Housing and Urban Development, Labor, and Transportation.[21] The OPDE can use convenings, working groups, and the distribution of best practices and playbooks or toolkits to facilitate cross-agency coordination on data needs in areas that are a high priority across the Federal government.

5. *Organize and publicize use cases on the public application of Federal data.* Federal agencies and their non-government partners need a repository of case studies to demonstrate the application of Federal data to meet public needs - to provide a source of ideas, demonstrate best practices, and help establish a culture of open data and data sharing. The OPDE can build on the use cases that data.gov has [begun to collect](#), and create a more extensive, organized, and searchable resource.[22]

6. *Establish a permanent Advisory Council on Public Engagement to represent public needs for Federal data.* This Advisory Council would include a wide range of members from inside and outside of government with expertise in the public use of Federal data, similar to the Advisory Committee on Data for Evidence Building. Unlike the Advisory Committee, however, the Advisory Council on Public Engagement will focus on specific, topical public data needs, rather than on the process for implementation of the Evidence Act overall. It would also be established as a permanent council, with rotating membership, since the need for continuous improvement of Federal data programs will remain indefinitely. One possible model is the [UK Data Advisory Board](#), which is the senior public sector board responsible for driving the better use of data in government and addressing any gaps and barriers preventing it. While the UK Board focuses primarily on data use within government, it serves as a useful model both in strategy and practice, with a focus on improving data quality, accessibility, and use to increase data capability and innovation, and improve public trust.[23].

7. *Coordinate with other Federal offices and committees whose work relates to the mission of the OPDE.* As the points above show, the OPDE will need to coordinate with other Federal offices and programs that have complementary missions, including OGIS, data.gov, the Chief Data Officers Council, and the Advisory Committee on Data for Evidence Building, which are all given related powers by the Evidence Act. The Office of Science and Technology Policy, which has been charged through a [Presidential Memorandum](#) with ensuring the quality and integrity of scientific data for public purposes, will be another key partner.[24]

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[20]
https://www.federalregister.gov/documents/2021/01/25/2021-01753/advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government

[21] For more on SDOH data sources that could be applicable to fighting the pandemic, see:
https://healthdatasharing.org/wp-content/uploads/2020/12/COVID-SDOH-Summary-Report-Final.pdf, pages 26-30

[22] https://resources.data.gov/categories/case-studies-examples/

[23]
https://www.gov.uk/government/groups/data-advisory-board-and-data-leaders-network#the-data-advisory-board

[24]
https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/memorandum-on-restoring-trust-in-government-through-scientific-integrity-and-evidence-based-policymaking/

Conclusion: Supporting the New Administration's Priorities

The Federal Data Strategy and the Evidence Act are not only important as government-wide policy: They are also critical to achieving the incoming administration's [four top priorities](#).[25] The fight to *control* [*COVID-19*](#) will depend on better data to track the pandemic and data on the social determinants of health that are major factors in COVID-19 risk.[26] The *economic recovery* can be facilitated by better data to match job-seeking Americans to job opportunities, and will need to be tracked with accurate employment and economic statistics. *Racial equity* can only be achieved with better data to hold police departments accountable, as well as data to reveal discrimination in housing, education, hiring, and environmental policies. And more open data is essential to fight *climate change* on all levels, including programs to reduce carbon emissions, adapt to a new climate, and increase cities' resilience.

The Biden administration's prioritization of high-quality data and well-managed data programs has been reflected in a number of the President's Executive Orders (EOs). These EOs address all of the administration's priority areas and focus particular attention on data in areas such as racial equity (EO 13986, EO 13985), COVID-19 (EO 13987, EO 13995, EO 13994), economic recovery (14002), and climate change (EO 14008). Furthermore, the Biden administration has reinforced the importance of data to achieve its priorities and restore trust in government through its [Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking](#).[27]

Within its first month, the Biden administration has demonstrated a strong commitment to opening and applying government data in the service of public good. The administration has an unprecedented opportunity to simultaneously bring U.S. open data policies to fruition and to use open data to achieve their top priorities. What's needed now is a commitment to robust, meaningful stakeholder engagement and a structure to carry out public engagement programs. To ensure success, the administration should create the Office of Public Data Engagement to bridge the gap between government data resources and the public that will put them to use.

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[25] https://buildbackbetter.gov/priorities/

[26] https://www.whitehouse.gov/priorities/covid-19/

[27] https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/memorandum-on-restoring-trust-in-government-through-scientific-integrity-and-evidence-based-policymaking/

Comments for the Advisory Committee on Data for Evidence Building

Submitted on Behalf of the National Student Clearinghouse

Docket ID: EAB-2021-0001

Comments are addressed to questions 1, 4, 5, 7, and 8 described in the Supplementary Information section of the December 15, 2020 Federal Register Request for Comments (85 FR 81179-81180)

Introduction

The National Student Clearinghouse appreciates the opportunity to respond to the Request for Comments for the Advisory Committee on Data for Evidence Building. While we are a neutral, mission-driven nonprofit that does not take a position on whether there should be a National Secure Data Service, or whether the current student unit record ban should be repealed, we have served as a student-level data network for almost three decades. In that capacity, we do have a perspective to share about the structure and function of any education sector portion of such a service that includes student-level data, should such a service be created in the future. We are more than happy to share our insights to help the government determine the most efficient and effective road forward.

Overview of the National Student Clearinghouse

The Clearinghouse is an independent nonprofit organization created by the higher education community in 1993 that provides a range of data and research-related services to the education and workforce communities, including data reporting and exchange, research related to retention, persistence and completion, Title IV compliance reporting to the U.S. Department of Education, and degree and enrollment verifications. Our mission is to serve the education and workforce communities and all learners with access to trusted data, related services, and insights.

Our enrollment data, which is reported at least monthly to the Clearinghouse at the program level, covers 97% of students enrolled in Title IV eligible degree-granting institutions, and our degree data covers 94% of such students and is reported by major field of study. This includes all types of students (full-time, part-time, first-time, transfer-in and transfer-out, Title IV aid recipients, and students receiving no Title IV aid), across all states and sectors of higher education. Thus, we are a comprehensive, student-level data system that serves higher education in vitally important ways and saves colleges and universities more than $750 million each year. We act in an agency capacity with all institutions that participate.

We also have a Research Center that works with higher education institutions, states, districts, high schools, and educational organizations to better inform practitioners and policymakers about student educational pathways. Through accurate longitudinal data outcomes reporting, the Research Center enables better educational policy decisions, leading to improved student outcomes. This includes our Postsecondary Data Partnership, which provides institutions with rich insights based on a comprehensive set of student data to enable student success. The Research Center recently began publishing a series of reports detailing the impact of the COVID-19 pandemic on education, including its impact on student enrollment, transfer, mobility and progress, which serve as aids to institutions and policymakers as they work to serve students during this difficult time.

You can learn more about our services and research at our websites: https://studentclearinghouse.org (Clearinghouse) and https://nscresearchcenter.org (Research Center).

Clearinghouse Data Privacy and Data Security

FERPA applies to Clearinghouse data. As a School Official of institutions of higher education. under the Family Educational Rights and Privacy Act (FERPA) the Clearinghouse is subject to a robust federal data privacy regime. We have worked with institutions to ensure FERPA compliance since our founding in 1993. For example, institutions report to the Clearinghouse those students that have placed a directory information block on their enrollment and degree records, and we respect those blocks in our research and verification services. We are a signatory to the Future of Privacy Forum's Student Privacy Pledge and a supporter of the Data Quality Campaign's Student Data Principles. You can learn more about our commitment to student data privacy at: https://studentclearinghouse.org/about/our-privacy-commitment.

The Clearinghouse maintains a robust information security program. The Clearinghouse maintains a comprehensive information security program based on the ISO 27001/27002 standards, staffed by experienced professionals, and backed by comprehensive security policies that detail operational, management, and technical control requirements that are mapped to widely accepted, industry best practice security standards. This program is regularly reviewed and updated on an annual basis to ensure its continuing suitability, adequacy, and effectiveness.

Clearinghouse Perspective on Questions Presented in the 12/15/20 Federal Register Notice

Response to Question 1

What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points they face in the evidence-based decision-making process.

The Clearinghouse works with a diverse cross-section of stakeholders in the education community, including public institutions of higher education, public high schools, school districts, and state agencies. Through this work, we see the bottlenecks and pain points these entities face in arriving at an evidence-based decision-making process. Primary among these is the inability of so many to afford a data infrastructure that enables them to collect, maintain, and use data in a consistent and effective fashion. They have a hard time competing for data workforce talent, and simply do not have the resources to support the latest technology.

**Response to Question 4**

**The Commission on Evidence-Based Policymaking (See: www.cep.gov) recommended the creation of a National Secure Data Service (See Commission Report at www.cep.gov). Do you agree with this recommendation, and if so, what should be the essential features of a National Secure Data Service?**

While we are neutral on the issues of repealing the ban on a student unit record system and establishing a National Secure Data Service ("NSDS"), we believe, based on our decades of experience, that any creation of such a service with student-level education records should keep the following points in mind:

1. Data privacy and security are paramount. The Clearinghouse's nonprofit model is based on institutions voluntarily providing us with data, and if we do not protect student privacy and the security of student data, our model is not sustainable. Likewise, for a student-level data network to maintain long-term viability, protecting the privacy and security of student data should be at the top of the priority list. Along these lines an NSDS could be less focused on the collection of information and more focused on establishing secure connected pieces of data that can be leveraged nationally. The Clearinghouse clearly could fit into that schema as it connects to data systems in all 50 states today with the privacy and security protections discussed above. We provide more on this in point 3 below.

2. A federal student level data network should provide institutions with access to reports and data they need for increasing student success. Most postsecondary institutions today, as well as thousands of high schools and districts, use directory level information available through the Clearinghouse's StudentTracker data services in order to better understand the educational pathways of their students. This information provides important insights for institutional improvements that benefit students, such as addressing specific causes of attrition, streamlining transfer policies, improving student advising, and helping stopped-out students return and complete degrees. A federal service should allow this same type of value proposition to institutions, in addition to any transparency or accountability purposes.

3. The nation has an existing postsecondary data infrastructure, including that of the Clearinghouse and state systems. Policymakers should consider leveraging this infrastructure in any federal student level data network. This could take many forms as determined by policymakers, including the use of the Clearinghouse for institutional data reporting into a federal system, for aggregation and reporting of metrics, or through a public private partnership with the federal government to provide a more complete picture of learner educational pathways into the workforce. One of the important aspects that the Clearinghouse brings to its current work is to detect and help data providers correct errors coming out of data systems prior to being merged into a data system. This process can be extended to other forms of data, mitigating the opportunity for data irregularities and providing a normalized data set for evaluation across state lines.

4. There are certain artifacts that federal agencies will not be able to include in a federal student level data network, but which are increasingly important to the policy goals of institutional transparency and accountability. Learners are preparing for the workforce through non-credit coursework that leads to industry-issued credentials, not just through traditional credit-bearing work that results in a degree. Any system that purports to provide insight into institutional performance and learner pathways should allow institutions to provide insights in this area as well.

The fast-evolving nature of micro-credentials and non-traditional forms of education provided by traditional education entities creates the prospect of an incomplete set of data regarding how institutions contribute to the education and workforce trajectory of learners. This provides misleading information, or at a minimum incomplete information, which could lead to an incomplete narrative. More on this below.

5. Evolve at the accelerating pace of educational innovation in support of diverse student populations. The world of education and workforce preparation is changing rapidly, with non-traditional approaches to training (like certifications and non-credit coursework) serving both traditional and non-traditional student populations. The education data portion of an NSDS should continually evolve to meet the changes faced by the stakeholders it serves. The major challenge here is that there are few national standards around the data content, descriptors, frequency of collection, or the quality of these credentials, although there are efforts underway to try to codify these. The world of micro-credentials and the gig economy present large challenges in ensuring that the learning and the outcome are in fact of quality. This presents measurement challenges. Leading edge institutions that are supporting learners could be disproportionately impacted by policies that have not evolved to the point where they can support these new learning outcomes, such as 21st Century skills being included in the learning outcomes of a leaner's journey.

Response to Question 5

How can federal agencies protect individual and organizational privacy when using data for evidence building? Recommend specific actions the Office of Management and Budget and/or other federal agencies can take when using data for evidence building, as well as suggested changes to federal laws, policies, and procedures.

A National Secure Data Service should provide transparency to data subjects about the data that is held on them, the uses to which that data is put, and their rights with respect to that data. Third-party access to data must ensure that FERPA, COPPA, HIPPA, and other related data protections are in force, and require that the level of security and transparency required under the Future of Privacy Forum work highlighted above be met.

Response to Question 7

Government agencies have argued that secure data access has value because it (1) improves service delivery, (2) improves efficiency (lowers costs), (3) produces metrics for performance measurement, and (4) produces new learnings/insights from the data. Which of these propositions do you agree holds value and why? Do you have examples that demonstrate these benefits? Do you have other examples of the value of secure data access?

A National Secure Data Service will produce value to the extent its purposes are made clear. With respect to the education-related data such a service would hold, the federal government should clearly articulate, in consultation with institutions that provide education data, the purposes of the NSDS and what questions it will be expected to answer. The federal government should also keep in mind that some successful data sharing initiatives require certain types of data, e.g., current data or longitudinal data. If certain research needs cannot be met with the type of data the NSDS leverages, those shortcomings should be made clear.

Also, the COVID-19 pandemic has shown how internet access and technology access is severely lacking for the most at-risk populations. This needs to be addressed, otherwise an NSDA will only provide value to the elite. Within the education community, the Clearinghouse has seen how the least resourced institutions are often also the ones dealing with the students who have the least resources.

Response to Question 8

What are the most pressing data needs of state and local decision makers and how would

making data accessible from federal agencies help meet those needs? To share data, what guarantees do data owners (or data controllers) need regarding privacy, data stewardship, and retention?

Data owners need to be assured that their data will be maintained accurately and securely, and be governed by a "do no harm" mindset. There need to be policies governed by FERPA and related data governance rules, including very precise account management processes that lay out at every level what data can be seen by whom, as well as the rules that differentiate between individually identifiable data and data sets that are in aggregate while ensuring comparability. The Clearinghouse performs this function today with Gear-Up and other national initiatives.

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Comments for the Advisory Committee on Data for Evidence Building
Docket ID—EAB-2021-0001-0001

February 9th, 2021

To: The Advisory Committee on Data for Evidence Building

We are pleased to provide comments in response to Question #9 of the 10 questions posed in the Federal Register. Question #9 reads:

"9. What are the key problems and use cases where collaborative work between federal, state, and local authorities' data analysis can inform decisions? What are key decision support tools? How would greater communication about data and tools benefit expanded evidence building?"

To provide context on our comments, we answered this question based on our first-hand knowledge in working with privacy-preserving record linkage technology. Datavant is the leader in privacy preserving data exchange, working with over 300 institutions to connect health data. Our mission is to connect the world's health data to improve patient outcomes and bring new treatments to patients faster. We believe that data fragmentation is the largest challenge facing the health data industry, and we are focused on building an open data ecosystem that allows players in the healthcare system to freely exchange data while protecting patient privacy. To accomplish this, we partner with companies, non-profits, and government entities that utilize our common infrastructure for the safe exchange of patient-level health information.

Key Problems and Use Cases
We have observed many benefits to population health that come from being able to link datasets together. We provide for illustration our public listing of peer-reviewed research papers done, many that have involved data sets from governmental agencies at the state and federal level (e.g. Veterans Administration data, Housing & Urban Development data, State Mortality record data, etc.) at this online address: https://datavant.com/datavant-research-portfolio/

We also identify two use case examples here:

- **Privacy Preserving Record LInkage can improve medical care available to patients through the creation of more accurate risk scores by combining governmental and private sector data sources.** By linking together registry data, state vital (mortality) data, and public and private hospital data, researchers were

able to improve the risk scores used to identify patients needing liver transplants.

- Source: https://pubmed.ncbi.nlm.nih.gov/31644488/

- **Privacy Preserving Record LInkage enables government agencies to have new insights into populations under their care.** Datavant has been used in several Veterans Administration projects to understand healthcare utilization patterns and services for Veterans that sought care in VA vs. non-VA facilities in the private sector, and to identify vulnerable Veteran populations such as homeless Veterans, or those at risk of becoming homeless

  - Source 1) Health Care Utilization Among Homeless Veterans in Chicago. Military Medicine, Volume 185, Issue 3-4, March-April 2020, Pages e335–e339, https://doi.org/10.1093/milmed/usz264

  - Source 2) Health Care Utilization Among Homeless Veterans in Chicago. Military Medicine, Volume 185, Issue 3-4, March-April 2020, Pages e335–e339, https://doi.org/10.1093/milmed/usz264

What are Key Decision Support Tools?
1.
   From our experience helping researchers design their research studies, we believe it is critical for researchers to have a Privacy-Preserving Record Locator Service that can determine which datasets hold data on the same patients. Such a tool allows researchers to determine which datasets will be most valuable for their research, before the time and expense comes of bringing those data sets together. This is even more useful when the datasets being assessed are held by different governmental jurisdictions, or even are held by non-governmental agencies.

How would greater communication about data and tools benefit expanded evidence building?

We believe the use of data to expand evidence building will grow the most when the following five criteria are met, all of which have the greatest chance of being met with Data Holders are aware of what tools exist to reliably de-identify, link, and track the data in question.

1.
   Data Availability:

a.

   To maximize evidence building, all available data would eventually become available through the National Secure Data Service. However, this will only happen if data holders learn about the existence of tools that enable their data to be de-identified and joined with other data sources.

2.
   Data Relevance:

   a.

   Data sets are most useful when they are paired with datasets that hold information on the same people. If data holders understand there are tools that enable a standard record linkage methodology, and that it is possible to quickly identify which datasets hold information on the same people, (before those data sets are brought together) then it will increase the likelihood that when data is joined, it will result in new insights. The success of bringing data sets together will drive increased demand to use privacy-preserving record linkage tools to generate new evidence and insights.

3.
   Data Reliability:

   a.

   Data sets are prone to error, sometimes inadvertent error. As an example, a coroner may accurately report a person's cause of death on a death certificate, but inaccurately record a patient's ethnicity, or leave such information blank, unsure of what the correct ethnicity is. Through privacy-preserving record linkage, other data sets holding information on the same individual (e.g. survey data sets) that recorded a person's attestation of their ethnicity, can be used to improve the accuracy of the mortality record.

4.
   Low Data Latency

   a.

   The COVID-19 pandemic illustrated that some public health needs require data that has just been generated in the last few days, or week, or month. If private sector organizations realize their data may have utility for government and public health professionals, they may install privacy-preserving record-linkage technologies within their data systems, so that their low-latency data is available upon request by the government. In the last crisis, this could have

taken the form of airline data being immediately available in a privacy-preserving way to understand the spread of the COVID-19 virus.

5.
   Clear Use Rights

   a.
      Perhaps the greatest insight we have seen from working with Data Holders is the importance of strong governance controls. Organizations may wish to collaborate with another data partner for one project, but not another. For example, a State may wish to share data on that state's citizens to support a public health use case, but not an immigration-related use case. If organizations understand that there are technologies that enable the continued downstream control of their data, so that the data can only be linked with other data sets they have authorized, and for use cases they have authorized, there is a greater likelihood that they will make their data available, and that the public will trust that data is being used with appropriate oversight. Without this understanding, it is less likely the organization will approve its data to be used for evidence-building.

We hope these comments are helpful to this important initiative.

Sincerely,

Jake Plummer
Head of Customer Success, Datavant, Inc.
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Calendar Link

1. **What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points they face in the evidence-based decision-making process.**

   Quasi-experimental designs combine data from federal, state and local programs with "universe" datasets, such as the business or household/person frames, need to navigate a complex set of agency norms and administrative and legal hurdles in order to share data. While the Evidence Act encourages agencies to conduct evidence building activities, it is still very difficult to navigate this process.

   Advancements in machine learning and computing power, coupled with the proliferation of third-party data have transformed the landscape of data protection. Statistical disclosure limitation methods that have been used for decades to protect confidentiality are increasingly vulnerable to sophisticated database reconstruction and reidentification attacks. Many government agencies at the federal, state, and local levels are unaware of the seriousness of these new threats, lack staff capable of performing sophisticated, quantifiable assessments of these new disclosure risks, and lack the resources to effectively invest in the design and implementation of new statistical disclosure limitation methods (and tiered data access mechanisms) to address these challenges.

2. **What are examples of high-impact data uses for evidence-based policy making that successfully effected change, reduced costs, or improved the welfare of citizens?**

   Quasi experimental studies of programs that provide causal estimates of program effectiveness are a cost-effective method for evidence building, but many of the public data products produced by Census help federal, state and local officials make more informed decisions. A recent example, Census supplied demographic and economic data to HHS/CDC to help guide decision making for COVID-19 response and recovery and data was supplied on language spoken at home so COVID-19 informational materials could be produced in the common language for that area.

3. **Which frameworks, policies, practices, or methods show promise in overcoming challenges experienced by governments in their evidence building?**

   Formally private methods for statistical disclosure limitation (e.g., Differential Privacy) show significant promise for countering the growing risk of re-identification. The quantification of privacy risk inherent to these methods allows for precise tuning of the privacy vs. accuracy tradeoff inherent to disclosure avoidance implementations, and the "future-proof" nature of these protections permits a "release-and-forget" approach to data dissemination that is not possible with most other techniques.

New techniques for generating synthetic data, particularly when coupled with verification or validation servers, show great promise for expanding the availability of high-quality data for evidence-building at low privacy cost.

Advancements in secure multiparty computation show promise in enabling sophisticated linkage and analysis without exposing the underlying confidential data. When coupled with automated and robust statistical disclosure limitation techniques, this technology could greatly expand the use of confidential data for evidence-building and completely bypasses many of the impediments to data sharing described above.

Also, interagency working groups for Emergency Management have shown promise by the better communication, coordination, and the exchange of data. Census has used its COVID-19 Interactive Data Hub to link to 38 COVID related datasets for state, local, tribal, territorial (SLTT), and public use. Prior to Census taking this action, these datasets were not all in one place and available to SLTT and the public.

4. **The Commission on Evidence-Based Policymaking (See: www.cep.gov) recommended the creation of a National Secure Data Service (See Commission Report at www.cep.gov). Do you agree with this recommendation, and if so, what should be the essential features of a National Secure Data Service?**

Many government agencies lack the human capital and financial resources to maintain a robust and effective data protection and data dissemination program. The availability of a National Secure Data Service, which could support data protection and data dissemination activities "as a service" for federal, state, or local governments, could benefit from obvious economies of scale to enable greater dissemination of data with stronger privacy protections.

Also, a secure data service needs to offer:

- A centralized hashed person/business linking capability similar to our PIK process. The best way to do that would be to base it off of something like the SSA Numident.
- A comprehensive inventory of data available in the NSDS.
- The service should provide scalable multi-functional infrastructure that is either fully funded or offers full cost recovery for the government.
- An even better solution we can work toward would be to create a secure multiparty computing infrastructure to allow agencies to contribute data for analysis without actually relinquishing control of those data.
- The data service should also provide internal expertise on the availability, composition, and limitations of the data offerings.
- The NSDS should manage a centralized data sharing agreement process rather than leveraging the patchwork of agreements that are currently in place at the individual agencies.

5. **How can federal agencies protect individual and organizational privacy when using data for evidence building? Recommend specific actions the Office of Management and Budget and/or other federal agencies can take when using data for evidence building, as well as suggested changes to federal laws, policies, and procedures.**

   Many agencies data assets are protected by statutes which prohibit the release of any identifiable information. That said, no statistical disclosure limitation technique or tiered access mechanism is 100% effective at eliminating disclosure risk. The release of any information, no matter how well protected, carries a non-negligible risk of disclosure. Consequently, agencies have to approach this from a risk assessment and risk mitigation perspective, but there is little statutory or policy guidance on how much risk is acceptable. Clear legal frameworks for defining acceptable risk would clarify the extent of the privacy guarantees we are expected to uphold while helping agencies to make more data available for evidence-building.

   Securing data and still making it accessible to users is critical. Using Protected Identification Keys (PIKs) as Census does is important. As well as utilizing secure environments that already exists like the Federal Statistical Research Data Centers (FSRDCs) - Secure Data Access.

   A law should be passed containing "data used for evidence building under this law and with the controls laid out herein satisfy all of the confidentiality and use restrictions present in Title 13 U.S.C., CIPSEA, Title 26, and program agency specific statutory and regulatory use restrictions, and privacy act routine uses for evidence building, etc." Without this piece, a tremendous amount of staff time and bandwidth may be spent trying to reconcile these legal conflicts and such a measure would break down any silos between agencies.

   It is going to be extremely difficult for this to happen though under an existing framework, such as our FSRDC process, under current statutes and regulations. It shouldn't fall to one agency to negotiate terms with all of the others to allow their data to be provisioned and used in this way. This should come from OMB.

   Another key piece is having some federally-recognized accreditation process for Disclosure Review. This would be similar to the registration process for Institutional Review Boards (IRB). That way we know everyone is meeting a minimum standard when they're reviewing output for disclosure limitation.

6. **If created, how should a data service be structured to best facilitate (1) research and development of secure data access and confidentiality technologies and methods, (2) and agency adoption of those technologies and techniques?**

   A data service needs to conform with existing laws concerning data sharing and privacy

such as Title 13, Title 15 and Title 26, or these laws need to be modified.

7. **Government agencies have argued that secure data access has value because it (1) improves service delivery, (2) improves efficiency (lowers costs), (3) produces metrics for performance measurement, and (4) produces new learnings/insights from the data. Which of these propositions do you agree holds value and why? Do you have examples that demonstrate these benefits? Do you have other examples of the value of secure data access?**

They all hold value and are essential to successful secure data access and impactful outcomes. (Data Services to Federal, State, Local Agencies and the Public.)

Data service needs to conform with existing laws concerning data sharing and privacy such as Title 13, Title 15 and Title 26, or these laws need to be modified.

8. **What are the most pressing data needs of state and local decision makers and how would making data accessible from federal agencies help meet those needs? To share data, what guarantees do data owners (or data controllers) need regarding privacy, data stewardship, and retention?**

SLTT data access is vital. The most pressing need is geographic granularity. Data at the State level isn't very useful to local governments. Minimum county and lower data is crucial for something to be actionable. Additionally, the more recent the data the better. Weekly Small Business Pulse, Weekly Household Pulse and Weekly Business Formation Statistics are three examples of Census programs with timely recent data about the impacts of COVID-19.

Data service needs to conform with existing laws concerning data sharing and privacy such as Title 13, Title 15 and Title 26, or these laws need to be modified.

9. **What are the key problems and use cases where collaborative work between federal, state, and local authorities' data analysis can inform decisions? What are key decision support tools? How would greater communication about data and tools benefit expanded evidence building?**

Census Bureau's Emergency Preparedness and Response Team (EPRT) delivers key demographic and economic data to FEMA and other agencies to help them in preparedness, response, and recovery efforts when disasters strike. Census produces an Emergency Management page for access to this data by anyone that needs it. Census has also made available easy to use tools to deliver this data.

10. **What basic public data services are essential for a data service to address existing capacity gaps and needs? What infrastructure or incentives can the federal government create that locals and states cannot?**

The Census Bureau's Post-Secondary Employment Outcomes (PSEO) is a great example of how the federal government can provide a service that individual states or consortiums of states cannot. Many states (Texas, for example) produce statistics similar to PSEO, but many graduates leave the state for work. These individuals' wage records exist in other state datasets and are most likely unobserved to Texas (there are sometimes states that share data with other states in their region). The LEHD program at the Census Bureau, which has the wage records from most states, can produce statistics for most graduates, not just the ones that remain in Texas. PSEO uses formal privacy protection methods because of these closely related statistics, but this does raise the issue of how to manage privacy "budgets" for multi-agency data.

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February 9, 2021

RE: Comments for the Advisory Committee on Data for Evidence Building in Response to the Request for Comments at 85 FR 81179

Dear Advisory Committee Members,

Thank you for the opportunity to provide comments on how to improve the use of data for evidence building.

The Data Foundation is a non-profit organization that seeks to improve government and society by using data to inform public policymaking. Our 50-member Data Coalition Initiative operates as America's premier voice on data policy, advocating for responsible policies to make government data high-quality, accessible, and usable. The Data Coalition's members have been strong advocates and supporters of the Foundations for Evidence-Based Policymaking Act (P.L. 115-435), including the OPEN Government Data Act and the Confidential Information Protection and Statistical Efficiency Act. Effective implementation of the statutory requirements in the Evidence Act remains a critical priority for our country's data infrastructure and capabilities in coming years.

The following comments in response to the request from the Advisory Committee on Data for Evidence Building (ACDEB) are high-level observations submitted on behalf of the members of the Data Coalition. Given the breadth of the RFC from the committee, these comments are not an exhaustive list of considerations or solutions. But the Data Coalition members hope these comments will inform the committee's fact-finding and formulation of recommendations this year.

Question 1: What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points they face in the evidence-based decision-making process.

Many of the challenges faced by governments at all levels are not unique to the public sector and are also experienced by private companies and research organizations as factors of institutional arrangement. Therefore, there are also considerable lessons to be learned from non-governmental entities relevant for responsibly and expeditiously addressing barriers and pain-points for using data to inform decision-making. Key bottlenecks relevant for the Advisory Committee's work include:

- *Data Discoverability and Reusability.* Traditional data collection can be expensive and difficult to do, particularly as alternative data sources and capabilities become more

prevalent. As researchers identify innovative approaches for using alternative datasets, there is the possibility for new collaboration through secure, responsible sharing. However, the core challenge in this context is not one of sharing, but how data users gain awareness of what datasets may already exist and be accessible to them for particular purposes or uses. The lack of easily-discoverable and widely-available data can prompt national, state, and local governments to undertake costly data collections for a single purpose, and the same is true in the private sector. Improving data governance to help jurisdictions discover and reuse existing data may remove substantial barriers to the use of data for evidence-building.

The OPEN Government Data Act (Title 2 of the Foundations for Evidence-Based Policymaking Act) specifically incorporates requirements for the federal government agencies to establish data inventories with appropriate metadata. The importance of this provision about data inventories in existing law cannot be overstated. Private companies that have internally resolved data discoverability issues and research consortia addressing reusability dynamics cannot solve these issues without well-designed, comprehensive data inventories. Further, the most effective inventory strategies incorporate assessments of data sensitivity, quality, and provide feedback loops for improving data collection and management procedures over time. Prioritizing implementation of this provision in federal law should be deemed a top tier issue, and state and local governments should similarly adopt procedures to prioritize inventorying as well.

How agencies publish their inventory is also relevant for the usefulness of any discovery tool. Some federal agencies have elected to publish data inventories in CSV files, for example. Manually creating an inventory in spreadsheets fails to adopt or apply solutions that can more comprehensively and meaningfully facilitate data discovery among internal agency staff, as well as the research community, private researchers, and the American public. Fortunately, many private firms have developed low-cost solutions that could be adopted without creating new custom-made approaches in government agencies. **The committee should minimally encourage agencies to engage in public-private partnerships to support rapid adoption, completion, and updates to required federal data inventories.**

● *Incentives for quality data reporting.* The committee's charge with considering the role of data in a federal context must acknowledge that much of the information provided to and used by federal agencies is reported from state and local governments, contractors, or grantees. Across the different programs and activities of government, the incentives for reporting timely, high-quality, and accurate information vary. Some data systems still operate with paper-based data collection and manual data entry, concepts that should have become obsolete in government operations 20 years ago but nonetheless persist. The incentive structures for reporting to, or even sharing with federal agencies in a more cooperative manner requires the use of monetary or value-based incentives. For example, private firms have experienced a greater aptitude for sharing when there is a "business intelligence" use for the information that can inform supply capabilities or

production timelines. The government's need for information must be calibrated to a responsible expectation of what the information will be used for and, in turn, produce products and insights that are meaningful and useful for other jurisdictions in an intergovernmental context.

Minimally, **the committee should encourage that federal agencies invest financially and with appropriate human capital in the resources needed to support state and local governments in reporting high-quality, timely information on priority programs and activities**.

2. What are examples of high-impact data uses for evidence-based policymaking that successfully effected change, reduced costs, or improved the welfare of citizens?

There are a great number of examples of federal, state, and local governments using data to support evidence-based decisions. We encourage the committee to review resources like *Evidence Works*, which specifically offers case studies that will be relevant to this question.[1] There are of course many other examples.

One such example comes from SSDI. Researchers were able to estimate the prevalence, duration and dollar amount of work-related overpayments accrued to Social Security Disability Insurance beneficiaries through the use of administrative data from the Social Security Administration. While overpayments among beneficiaries were rare overall, these overpayments accounted for $831 million in FY 2010. The researchers used multiple administrative data sets within the Social Security Administration, each of which captured different information necessary to conduct the appropriate analysis. More information on this project and discussion of particular data sets can be found here.

The Commission on Evidence-Based Policymaking also identified multiple examples in its final report.

Uses of evidence can be difficult to detect and may not correspond to represent one-to-one comparisons of a data claim or evidentiary conclusion and an observable action. This should not deter the committee's work in prioritizing improved uses of data sharing and linking capabilities that may contribute to long-term policy change, shifts in how policy actions are reviewed or considered, or even an improved understanding of the current state of the world that may affect problem definitions.

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[1] N. Hart and M. Yohannes. *Evidence Works: Cases Where Evidence Meaningfully Informed Policy*. Washington, D.C.: Bipartisan Policy Center, 2019. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3766880

4. The Commission on Evidence-Based Policymaking recommended the creation of a National Secure Data Service . Do you agree with this recommendation, and if so, what should be the essential features of a National Secure Data Service?

The Data Coalition Initiative strongly supports the recommendation from the U.S. Commission on Evidence-Based Policymaking for creating a National Secure Data Service. Such a data service can improve coordination throughout the federal government's decentralized data infrastructure, and would improve our nation's ability to generate timely and relevant information needed for sound policymaking. The Data Coalition also recognizes that a single data service may be unable to meet the demand for use based on current gaps in the existing infrastructure and may also not satisfy all of the potential data linkage needs for a variety of purposes and uses. However, it is reasonable to believe that the Evidence Commission's proposal for a National Secure Data Service is a sound starting point for improving the capacity and capability of the government to address long-standing information deficits. Nonetheless, the Data Coalition members also call on the committee and government to intentionally plan for future data needs and uses for non-statistical and non-evidentiary purposes where similar data linkage and sharing capabilities may be needed to address improper payments, fraud detection, or other administrative matters of government.

For a data service as envisioned by the Evidence Commission in its final report, the Data Coalition recognizes that the following characteristics are essential, though may not be the only features vital to a successful data service:

- *Cross-functional data management* - The Evidence Commission recommended a data service for exclusively statistical purposes and activities, which may be reasonable for the service envisioned here; other services or capabilities may also be needed for broader purposes and uses. The committee's recommendations will need to specify particular uses and purposes in the near-term. However, data users will recognize the benefits of a data service for a multitude of reasons. The design of the service must account for a range of perspectives and incorporate feedback from a wide variety of users and contributors to ensure that the service is meeting diverse needs.

- *Standards and practices for data management* - In order to ensure data are reliable and usable for researchers, there must be strong and clearly defined data management standards, such as cataloguing conventions and metadata documentation. These standards must also be reasonably enforced or be coupled with incentives for compliance. The Chief Statistician of the United States in partnership with the Chief Information Officer could support adoption of appropriate standards using authority provided in the Paperwork Reduction Act of 1995.

- *Accountability and oversight* - A National Secure Data Service needs to be trusted by the public. In order to achieve that trust there need to be strong oversight and accountability mechanisms. This should include cooperation and coordination with existing oversight organizations such as the Government Accountability Office, congressional bodies and relevant inspectors general. The committee might consider designating an existing or

new inspector general role for specifically overseeing government's data linkage and sharing capabilities as well as compliance with open data, data inventory, and data quality mandates.

● *Transparency* - Any data service must promote public trust by transparently and clearly explaining its policies and activities, including how confidential data are used. This can be effectively accomplished through a searchable directory of ongoing and completed projects. A key provision in this would be to have any decisions made by the data service be both auditable and appealable, including how researchers are granted or denied access to data.

● *Privacy and Confidentiality protections* - A strong commitment to privacy and confidentiality must be foundational to a National Secure Data Service. Security protocols and confidentiality protections must be planned for early in the design, and there must be staff who are on the cutting edge of new information technologies used to link data. These protections should be at least as strong as the protections in the federal statistical system under the Confidential Information Protection and Statistical Efficiency Act.

● *Future-friendly* - As new technologies and methods are developed, a data service must have the ability to adapt to new conditions, while preserving the intent and integrity of the original vision of increased data access with privacy and confidentiality protections.

● *Funding* - Long term and sustainable funding is vital. Long term funding will provide stability and certainty needed for researchers and agencies to make the commitment to using a data service. While a fee-based model could be explored as supplemental funding, direct appropriations will be necessary to support initial start up costs and sufficient expert staffing to support a well-run entity.

In addition to the comments offered here, we recommend the committee consider the characteristics and solutions presented in a 2020 Data Foundation white paper funded by the Alfred P. Sloan Foundation, which specifically addressed this question and identified topics for further consideration of the committee.[2] The white paper considers strategies for establishing a National Secure Data Service designed to support evidence-building and statistical activities, consistent with the recommendations of the Evidence Commission.

The Data Coalition Initiative and its members look forward to being an ongoing resource for you. If you have any questions about these comments or other areas our members' expertise can address, please contact me at corinna.turbes@datafoundation.org.

Sincerely,

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[2] N. Hart and N. Potok. Modernizing U.S. Data Infrastructure: Design Considerations for Implementing a National Secure Data Service to Improve Statistics and Evidence Building. Washington, D.C.: Data Foundation, 2020. Available at: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3700156

Corinna Turbes
Managing Director of the Data Coalition Initiative

About the Data Coalition Initiative

The Data Coalition is an initiative of the non-profit Data Foundation. The membership-based initiative facilitates a strong national data community and advocates for responsible policies to make government data high-quality, accessible, and usable. The Data Coalition's work unites the data communities that focus on data science, management, evaluation, statistics, and technology, including individuals in companies, nonprofit organizations, and academia.

February 9, 2021

Data Quality Campaign Comments to Advisory Committee on Data for Evidence Building.

The Data Quality Campaign (DQC) appreciates the opportunity to respond to questions posed by the Advisory Committee on Data for Evidence Building to address state challenges and needs. DQC is a policy and advocacy organization committed to ensuring that education stakeholders have access to and can use meaningful, high-quality data in support of students. We believe that the federal government plays an important role in creating the conditions that will enable states to modernize their infrastructure and explore innovative approaches to analyzing and using data to generate insights that result in better services to individuals. Below, you will find our responses to questions 8 and 9.

Question 8. What are the most pressing data needs of state and local decision makers and how would making data accessible from federal agencies help meet those needs? To share data, what guarantees do data owners (or data controllers) need regarding privacy, data stewardship, and retention?

States are currently struggling to meet pressing information demands that their data "ecosystems" are not equipped to handle. They need to upgrade their technical infrastructure, and also increase their capacity to analyze and use their data. With looming budget shortfalls, they will need federal support to address these challenges. Among other things, they need:

- A rapid infusion of funds to comply with new federal reporting requirements, inform learning recovery through rapid research projects, and make upgrades to systems and tools to address their most immediate new information needs.
- Significant investments in their data infrastructure to modernize outdated systems, link and share data across agencies, make more data sets "open", and create new analytic tools and dashboards to get stakeholder the insights they need.
- Support for research partnerships and streamlined processes for providing researchers with access to data to increase state and local agency capacity to build evidence and make research informed policy decisions.
- Staff imbedded in state and local agencies with the skills to nimbly navigate available data and provide findings in an easily consumable manner.
- Technical assistance and resources related to safeguarding data to ease the burden of responding to questions, complying with state and federal requirements, and training others on their responsibilities related to data privacy and security.

Question 9. What are the key problems and use cases where collaborative work between federal, state, and local authorities' data analysis can inform decisions? What are key decision support tools? How would greater communication about data and tools benefit expanded evidence building?

State and local data staff tend to be stretched in many directions, with the same people trying to meet internal agency needs, federal compliance requirements, and external requests. To ease these challenges, they need:

- Clear and prompt information from the federal government about expectations for new reporting requirements.
- Efforts to reduce reporting burden, when data collections are no longer needed or can be gathered through a different source.
- Consistency in definitions so they do not need to collect similar things differently depending on the source of the request.
- Opportunities to provide input on new data collections or other new initiatives so that they can share what they already have and can do, and those opportunities and limitations are considered in any new federal actions.

State and local leaders have limited time and many policy issues requiring insights. To get value from their data infrastructure they need:

- Information presented in a manner that is easy to consume and that facilitates decision-making.
- Insights that a require linking information across agencies (e.g., high school feedback reports that provide information about choices individuals make after high school).
- Systems nimble enough to adjust to collect new information or provide new reports as priorities change.

**Response to the 12/15/20 Request for Comment from the
Advisory Committee for Data on Evidence Building
Submitted 2/9/21**

As philanthropies and organizations that care deeply about creating brighter futures for American youth, families and communities, we strongly support the work of the Advisory Committee for Data on Evidence Building (the Committee). We appreciate the opportunity to submit a response to your request for comment on the effective implementation of the Evidence Act's recommendations. The themes and ideas represented in this response reflect many more individuals' and organizations' input than the signatories listed. There is great and growing interest within the philanthropic, advocacy and think tank communities to not only support the effective use of data to improve decision making and outcomes, but to ensure that the collection, analysis and use of data is informed by the people it is attempting to serve. Each of our organizations stand ready to engage with the Committee in further conversation and are eager to help bring community voices into these discussions.

The most important challenges facing the country - on issues as diverse as economic mobility, racial equity, and recovery from the COVID-19 pandemic - cannot be solved without coordinated action across the interdependent agencies that provide vital funding, direction, and critical direct services. Equally important is the partnership of the federal government with state and local government to ensure that federal actions around data are geared towards ensuring that data is not used as a tool of compliance but to enlighten, empower and improve the results achieved for citizens. That collaboration across federal agencies and government at all levels is only possible when agencies can share information safely and broadly engage stakeholders to review, evaluate and improve the programs and policies that affect them. The Foundations for Evidence-Based Policymaking Act (Evidence Act) is an important step toward making that important work possible. However, we also believe there are specific areas which require attention in order for the federal data strategy outlined in the Evidence Act to be successfully implemented with positive results.

Specific Areas in Need of Attention in the Federal Strategy:

These comments put forth six areas which the Committee should prioritize to ensure successful implementation of the federal data strategy:

1. **Strengthen Learning Agendas through a More Inclusive Development Process and Governance Structure;**
2. **Encourage Multi-Agency Efforts to Establish Connected and Aligned Learning Agendas;**
3. **Emphasize Equity and the Needs of Underserved Communities in Agency Learning Agendas;**
4. **Redouble Efforts to Build and Maintain Public Trust in Federal Data;**
5. **Ensure the National Secure Data Service is Accessible to Decision Makers at All Levels; and**
6. **Increase the Capacity for Data-Driven Decision Making within Federal Agencies and States.**

Strengthen Learning Agendas through a More Inclusive Development Process and Governance Structure

The agency learning agendas mandated by the Evidence Act represent a unique opportunity to set priorities that meet the information needs of the field and reflect the needs of communities affected by future policy. This prioritization cannot be accomplished without the field being an integral part of the process, with active participation and debate by a broad set of stakeholders including research experts, policymakers, program staff involved in service delivery and affected populations. Without clear guidance and oversight, agencies may treat creating a learning agenda as a compliance exercise limited by their existing evaluation mechanisms, partnerships and constraints related to budget and data. And without permission and encouragement to engage community voices in the agenda development and management process, we are concerned that agency evaluation officers will deliver learning agendas in 2022 and beyond that lack the compelling vision, partnerships and stakeholders necessary to pursue it.

To maximize the likelihood that the published learning agendas will be credible plans capable of mobilizing action, the Committee should encourage the Office of Management and Budget (OMB) to provide guidance to agencies encouraging them to share working drafts for comment, be transparent and explicit about who they engage for feedback and highlight areas of meaningful discussion and negotiation. Every agency should establish a governance structure responsible for this broad outreach and for communicating how the end product serves the interests of affected populations and builds on the best thinking of experts in the field. A premium should be placed on expanding beyond conventional engagement strategies and experiment with new ways to engage the public in decisions about their questions, information needs research priorities and concerns about the use of data (see for example the [Data Assembly](#) convened virtually by GovLab to inform the use of personal data in COVID-19 response).

We hope that agency learning agendas will also clearly identify the appropriate data source(s) needed to execute them. Clear signaling from federal agencies about what questions might be answered with existing state administrative data sources rather than requiring federal or nationally representative data will help motivate funding for research by state agencies and their partners (e.g., Policy Labs and members of the network convened by [Actionable Intelligence for Social Policy](#)). Agency learning agendas should also include a list of relevant and important data sources that are absent, not able to be linked or shared, or of such poor quality that prevent answering stakeholders' highest-priority questions. Calling attention to areas for data development by the federal statistical system and its state and local partners will be crucial for developing evidence about what works in policy areas such as criminal justice reform, disaster recovery and intergenerational economic mobility that have been frustrated by bad, balkanized and missing information. It would be helpful for the Committee to issue recommendations on how Congress and federal agencies could incentivize this new data development, much of which necessarily begins at the state and local level and will require modifying existing technology and reporting systems.

Encourage Multi-Agency Efforts to Establish Connected and Aligned Learning Agendas

The most pressing questions facing federal policymakers are not easily solved by a single data point or data set. Questions about how to advance economic mobility, for example, require data sharing, analysis and evaluation across the Departments of Health and Human Services, Education, and Labor, and are greatly enhanced by data held by the Internal Revenue Service and Treasury. The demand for high-quality, affordable early childhood care and education raises questions at the intersection of

workforce training, health and human services for which the Centers for Medicare and Medicaid Services, Department and Housing and Urban Development and Department of Agriculture also have relevant data and discretion. And because many federal programs administered at the state level do not collect participant-level data that is often necessary to evaluate questions about program uptake and effectiveness, additional collaboration with state and local partners can be crucial.

Advocacy and constituency organizations such as Results for America and the Head Start Association have submitted recommendations ([here](#) and [here](#)) to the new Administration to develop dynamic cross-government learning agendas and to focus on the need to build governance structures that prioritize cross-sector data sharing and problem solving. The Committee should consider how to create and strengthen these mechanisms for aligning agency learning agendas, along with their data collections/analysis capacity, to create a coherent federal approach to the problems that matter most to Americans. The Committee might consider whether regional approaches such as leveraging the Regional Education Laboratories as conveners for cross-agency partnerships focused on education and health equity issues in US South and Southwest might contribute to strengthening the use of data to address real problems.

Emphasize Equity and the Needs of Underserved Communities in Agency Learning Agendas

We applaud the several agencies that have published initial learning agendas for comment well in advance of the 2022 deadline, while also directing the Committee's attention to areas where even the strongest of these learning agendas would benefit from greater focus and action:

● Institute mechanisms to solicit critical feedback from program participants and their advocates. This collection of input is a requirement of the Evidence Act and part of OMB's guidance to agencies; it is important because citizens who are end-users of federal programs as student borrowers, public benefits recipients and small business owners have a perspective on the operation of those programs that is distinct from those who regulate and run them. The organizations that advocate for these groups have different criteria for "what works" and for the kinds of data that should be regularly available to the public to evaluate results. These organizations can and should be a constituency for the work of agency chief data officers and chief evaluation officers, and they need to be consulted as part of the Learning Agenda development and implementation.

● Include race and racism, as factors central to understanding many aspects of US social and economic policy, in ways that raise under-explored questions about program and policy design and implementation. Within his first hour in the Oval Office, President Biden's White House issued an [executive order on advancing racial equity](#) and support for underserved communities. Agencies developing and updating their Learning Agendas should include a discussion of what that executive order means to their data collection, learning and evaluation strategies. Agency plans should include strategies for improving the accuracy and consistency of demographic categories, which are currently captured differently between state agencies and even across different programs funded by the same federal agency. This might require guidance and support for states to update their data collection forms and systems; agencies should consider options for using data linkage processes to generate aggregate statistics on racial disparities without the additional burden and privacy concerns associated with new data collections.

- Expect and encourage meaningful partnership with the civil rights community in the creation of the learning agendas necessary to fulfill the Evidence Act. Stark examples of over and under-surveillance of minoritized communities have become more prevalent as government data collection at the local, state, and national level for monitoring and program evaluation become more commonplace. Unfortunately, these harms are often unearthed long after data-driven tools have been implemented or exist unnoticed and unresolved. Given the potential for data to accelerate both future benefits and harms, it is imperative to have a balanced approach to analyzing the contributions the learning agendas will serve. By inviting insights from the broader civil rights ecosystem, agencies may be able to better address and mitigate future harm while preserving the value of the Act and its effects.

Redouble Efforts to Build and Maintain Public Trust in Federal Data

The execution of the Evidence Act is happening at a time of deep public skepticism in government collection and use of personal data. That skepticism has been informed by high-profile hacks of government agencies, a national debate about student privacy, litigation about the government's right to collect information on citizenship as a part of the decennial census, and growing awareness of how both public and private surveillance technologies have expanded into the lives of Americans over the past decade. The Committee should expect to hear arguments that the federal government already has too much data and should avoid new data collection mandates and new data services. Even with the assurance that the Evidence Act calls for little or no additional data collected and more effective use of data already available to federal agencies, the federal data strategy is still a questionable premise for many concerned about government overreach and/or who fear both deliberate and unintended misuse of data to harm certain populations.

Steps are necessary to build trust in data collection and use by the government at all levels, but in particular by the federal government which is the furthest removed from the people it serves. Critical to building trust is a commitment to transparency, to providing value, and to data minimization and security. The Evidence Act reinforced the privacy structure within the federal government through the reauthorization of the Confidential Information Protection and Statistical Efficiency Act. While this is important, there is more to trust building than strengthening privacy provisions (please see the submitted comments from the Center for Democracy and Technology for specific recommendations around this point). People will not use data (and will protest against its collection) if they don't trust it, think it may hurt them, and/or they don't find value in it.

The Committee should urge and assist OMB and federal agencies to:

- Develop clear strategies for communicating why their work under the Evidence Act benefits the public and to make a case that the reward for citizens outweighs the risks. This requires communicating in plain language that is easily accessible by the public about what data is being collected, for what specific purpose, the benefits to the community, and how it will be stored, shared, and safeguarded;
- Ensure the public and their advocates inform and critique each agency's data agenda, consistent with the recent White House memorandum on [Restoring Trust Government Through Scientific Integrity and Evidence-Based Policymaking](#) (January 27, 2021);
- Proactively engage civil rights and privacy advocates to address any concerns about Evidence Act implementation, e.g., to demonstrate the federal government's progress applying [Civil](#)

[Rights Principles for the Era of Big Data](#) (These groups are underrepresented within ACDEB and the advisory group's agencies convene to advise their research and data strategies, and their support will be crucial for allaying any fears about federal overreach in this area.);

- Address the legitimate concerns arising around the use of predictive analytics, artificial intelligence, and algorithmic / automated decision-making systems and invest in solutions to ensure that data is used to promote greater opportunity and more equitable outcomes for citizens;
- Clarify and harmonize federal privacy law across agencies to reduce the confusion that adds to unnecessary burdens on data collection and distrust that agencies are providing adequate protection to citizens. Ensure that public-facing privacy policies are written for busy parents, not lawyers (see https://www.plainlanguage.gov);
- Recognize that public trust in the federal data infrastructure is not limited to questions of data privacy and security, but about explicit commitments to use those data ethically and effectively to get better results for the country; and
- Build an enthusiastic constituency for this important work through partnership with local and state governments, researchers and advocates for affected communities.

Ensure the National Secure Data Service is Accessible to Decision Makers at All Levels

The promise of the Evidence Act is to help inform and resolve some of the most difficult problems faced by policymakers and practitioners at all levels, and particularly at the state and local levels where better solutions are most keenly felt by citizens. If the infrastructure created by the Evidence Act becomes accessible only to federal agencies and a few of their elite research partners, it will break this promise and contribute to a cynicism among decision makers that research and evaluation are irrelevant to the practical challenges of government. This will further erode the public trust necessary for federal data efforts to be successful.

OMB should take steps to:

- Ensure that if a National Secure Data Service (NSDS) is built, it prioritizes answering questions relevant to near-term policy and resource-allocation decisions facing state and local executives (e.g., at this moment that might be related to pandemic response and understanding uptake of key safety net supports);

- Solicit ideas for using the NSDS not only for formal research and evaluation, but also for creating value-added data products not otherwise available to local and state leaders that are useful for both government transparency and management. While there is a place for gold-standard research and randomized controlled trials, the vast majority of people's information needs can be served by less burdensome, expensive and time-exhaustive analysis. The College Scorecard and new Department of Labor TrainingProviderResults.Gov site are good examples of this; where possible these new datasets should be made publicly available in easily accessible, machine-readable formats that invite additional tailoring and use.

- Partner with state data leaders, such as the State Chief Data Officer Network housed at the Beeck Center for Social Impact and Innovation at Georgetown University, to help develop and improve these kinds of practical information tools. Input from "end users" will make it more

likely that these efforts will not only inform policy, but also identify areas where federal practice and regulations are making it difficult for states and local government to use data to serve people, and there are needs to harmonize regulations around data quality, security and access. In the past decade, state and county governments have built increasingly integrated and capable data systems that have access to information that is often richer and timelier than what is available to federal agencies. Ensuring these data can be safely matched to other state and federal data through the NSDS to answer defined policy questions should be a priority and would benefit from federal coordination and support. A pilot program to promote project-specific cooperation between state data enclaves and federal agencies would help the Committee understand the sophistication and limits of states' existing infrastructure, and to appropriately leverage them for federal statistical purposes (e.g. to evaluate the completeness of the decennial census). It would also inform the understanding among agencies and the OMB of the factors constraining state data integration and evidence-building efforts, including those that could be eased through additional federal guidance.

Increase the Capacity for Data-Driven Decision Making within Federal Agencies and States and Communities

The success of this effort to build and leverage an improved federal data infrastructure to pursue these ambitious learning and evaluation goals will hinge, ultimately, on government's ability to deliver better results. This will require governments at all levels - not just federal agencies - to expand their capacity for data management, analysis, applied research, and dissemination of insights. We urge the Committee to use its convening power to closely examine the need for expertise, financial support, expanded partnership with experts in the academy and private sector, and technical assistance, and to consider recommendations to:

- Expand the talent available to federal agencies to meet increased information demands. There is a growing supply of technology, data and cyber-security professionals in the private sector, reflecting the importance of informational work to the US economy and its firms. The federal government needs to carefully assess its own needs in this area and to create both short- and long-term strategies to tap this workforce to modernize the federal data enterprise. Successful programs like Intergovernmental Personnel Act (IPA) Assignments need to be expanded, and new pipelines into public service for top-tier talent from the technology sector created.

- Provide financial support to state and local governments to expand data capacity. State and local governments have made great progress establishing their data infrastructure in the past two decades, but they require funding to both incent innovation as well as to maintain capacity to keep up with growing demands for data use. Given budget cuts caused by the pandemic and economic crisis, the federal government needs to step up and provide additional resources to ensure local and state government is positioned to meet their communities' information needs. Federal support could take many forms, including:

  ○ Creating a new competitive grant program (or build into existing grant programs such as the Department of Education's Statewide Longitudinal Data Systems Grant Program) to encourage states to create cross-agency "mini-commissions" modeled on the Commission on Evidence-Based Policymaking to outline state priorities for evidence-

based policy, research, and data development and to broaden their engagement with experts and affected communities;

- ○ Incentivizing states to develop and sustain data linkage capacity by increasing administrative set-aside dollars in federal programs that can be used for this purpose. Past examples of federal funding streams that supported state data capacity in this way include the Preschool Development Block Grants, Race to the Top funds, and OMB's A-87 cost allocation exception for Medicaid eligibility and enrollment systems;

- ○ Creating a need-based capacity-building program based on evidence about data quality, so that the state and local governments with the largest capacity gaps do not get left behind; and

- ○ Supporting research-practice partnerships to ensure that states have support from external researchers to use data and evidence in their decision-making.

The design of these grant programs and/or regulatory flexibility should be informed by the successes and failures of past efforts. We are not aware of any thorough review of state interoperability projects funded through the Medicaid A-87 exception, for example, and there are almost certainly important lessons about how states' internal capacity, interpretation of guidance around im/permissible blending and braiding of federal funds, and the composition of their leadership teams contributed to the value of these projects to future evidence-building activities.

Additionally, OMB should consider consulting representative data leaders from states and communities to ask them how to structure federal support so that it reinforces and expands existing data centers that are providing high-quality research and policy guidance and does not duplicate or undermine already-mature efforts. The State Chief Data Officers Network could be one such body.

All successful state and local applications for federal data grants should:

- ○ demonstrate clear coordination between and endorsement by both the executive and legislative branches for new data systems development and interoperability initiatives.
- ○ leverage existing state infrastructure (e.g., SLDS, Policy Labs);
- ○ identify clear priorities for evidence-building and evidence use in policy making and management.
- ○ show familiarity with established best practices where they exist (for data governance, record linkage, metadata, data use in decision-making and evidence-building activities); and
- ○ prove broad support from civil society, including civil rights organizations.

- Create structures that promote and incentivize the use of "actionable intelligence". Federal investment in and use of data has been overwhelmingly driven by the government oversight and accountability requirements rather than focusing on the information needs of its stakeholders. When funding and attention have been directed to basic science and research, the significant insights we have gleaned (e.g., collected on registries of evidence-based social programs) have

been difficult for communities to access and apply in practice. The result within education - to take the example of No Child Left Behind which increased data collection and reporting requirements for state in the goal to hold schools accountable for results—has been a backlash around using data as a tool of punishment rather than a tool of improvement.

The Evidence Act presents an opportunity to change the negative view of data and the culture of compliance; to do so, the Committee will need to acknowledge the tendency of government to use data as a hammer rather than a flashlight, and to create countervailing incentives. Across the social services fields in particular, there is a lack of capacity in knowing how to use data as a tool of improvement and how to use data to manage for results. These are skills that must be taught, prioritized, and reinforced at every level. A great deal can be learned from decision intelligence frameworks (see the "[Decision Theater](#)" created by Arizona State University) and other "actionable intelligence" efforts. The federal data strategy must go beyond the effective collection, linkage, analysis and protection of data. The resulting insights of that information will never have impact if it is not communicated effectively and people know how to access and use it to address the challenges and questions in their lives.

We appreciate the opportunity to share these comments and stand ready to answer any further questions of the Committee.

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Round 1

CENTRAL QUESTIONS—

1. What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points they face in the evidence-based decision-making process.

Misalignment in legislation and guidelines:

- While requiring a rigorous evaluation to build evidence, there is often insufficient support from federal legislation for ensuring conditions for such evaluations.
- For example, while U.S. Department of Labor (USDOL) recommends a randomized controlled trial (RCT) as a "approved/rigorous" method through "Causal Evidence Guidelines, Version 2.1" for evaluating Reemployment Services and Eligibility Assessment (RESEA) program, there are many requirements that make implementation of RCT very difficult, such as requirement of service provision to population selected by Worker Profiling and Reemployment Services (WPRS) profiling model.
- Also, while requiring states to conduct a net impact evaluation with the goal of creating evidence with a specific timeline, new performance measurements are introduced in the middle of evaluation phase.
- On a related note, by associating funding allotment condition with the proven level of efficacy of a program, legislation can unintentionally put pressure on evaluators or program administrators to "find" evidence hindering independent and unbiased evaluation.

Interdisciplinary nature of the work and lack of coordination:

- Evidence-building activities often require an interdisciplinary collaboration that requires a lot of coordinating efforts, e.g., evaluating a specific program takes expertise of the program under evaluation, IT knowledge on database and case management applications, statistics and econometrics. While it seems common at the federal government level to have a centralized coordinator who disseminates evidence-based policy making practice such as an "evaluation office", such level of coordination or support to create one is lacking at the state and local government level. There seems to be a significant time lag in the proliferation of the evidence-based policy making process as a culture.
- In Washington State, we have faced the problem of educating executives and managers of the meaning and implications of an evidence-based decision-making process, including understanding the definition of impact evaluations, performance measures and their relation within the evidence-based decision-making process.

Lack of database designed to support evidence building:

- Existing administrative databases are mainly designed to support public facing case management applications or to support producing federally or state required reports (mostly performance or grant reports) but rarely designed to support net impact analyses.
- For that reason, researchers often don't have access to data they need. E.g., some data are "replaced" by new data elements without archiving the data being replaced because the old values are no longer needed from a non-research perspective.
- Similarly, data dictionaries, if available at all, are typically written in a way to help specific

but non-evaluation tasks.
- To create a repository of relevant information for analysts, we suggest that the Department of Commerce (DOC) play additional emphasis on conducting randomized controlled trials to collect experimental data. The DOC can follow the USDOL in providing guidelines for causal inference, or adopt the USDOL's. They can provide a similar clearing house to aggregate evidence and draw conclusions based on many studies of the same program.

<u>Data acquisition and reporting challenges include:</u>
- Within Washington state -
  - In order to bring data together from multiple agencies for an evaluation, or even for federal reporting, it is currently necessary for multiple agency IT and reporting teams to coordinate on defining data needs, physically extracting the data to file, physically transmitting the file to the target agency, reuploading the data, using the data, and destroying the data in accordance with retention requirements. This extract / transport/ upload/ destroy process extends reporting and research timelines while creating numerous potential points of failure, including potential for security breach.
    - For this reason, each data share is preceded by a slow customized data sharing agreement/ contracting process to establish strict legal guidelines for accessing, viewing, handling, storing, and destroying data.
  - Across agencies (and even within agencies), data definitions and identifiers may not be well aligned even within the same business domain. For example, systems with employer data do not consistently require any common identifier that easily enables crossmatch in later reporting.
- Across multiple states –
  - Here in Washington state, workforce development areas that border other states struggle with incomplete data because their customers frequently cross the border for work or training opportunities. Program administration in these areas would directly benefit from easier access to out-of-state data, and state level reporting and evaluations could use these data to fill in troubling analysis gaps. Limited data sharing does exist, but data is typically not accessible to all the types of reporting that could benefit.
- Federal-state coordination –
  - Washington state has encountered communication challenges with federal and state agencies over data changes (e.g., significant format or validation changes with little notice from federal agencies). This technical hurdle can add to the timeline for, or reduce the quality of, reports and evaluations.
  - Some federal data, such as SWIS data, can be requested for evaluations. However, current limits on available data (e.g., most recent 2 years) limit the usefulness of data for evaluations and research.

2. What are examples of high-impact data uses for evidence-based policy making that successfully effected change, reduced costs, or improved the welfare of citizens?

Any net impact study that used a rigorous causal inference methodology, underwent and passed a rigorous peer review process, and found an impact that is statistically meaningful are good examples. Of these studies, those that use experimental data (e.g., randomized control trials (RCT)) are considered the best type for evidence-based policy – gold standard for evaluation studies. Some examples are the studies that evaluated the Student/Teacher Achievement Ratio (STAR); the Abt Associates' net impact study of Reemployment Eligibility Assessment using an RCT (experimental data); and the 2011 analysis of Nevada's Reemployment Services and Assessment (REA). The last two studies evaluating the REA program provided evidence that the REA program reduced unemployment insurance claim duration and improved employment outcomes. Both studies used an RCT to collect experimental data. The Nevada study is cited by the USDOL as a reason for prioritizing implementation of this program across the country. Furthermore, starting in 2023, states must allocate funding to RESEA programs that are supported by causal evidence and found to be

effective.

3. Which frameworks, policies, practices, or methods show promise in overcoming challenges experienced by governments in their evidence building?

The Department of Labor has established a very promising framework for supporting states as they evaluate their Reemployment Services and Eligibility Assessment (RESEA) programs. In addition to the causal evidence guidelines they have provided, they provide funding to states to conduct their evaluations (e.g., "Causal Evidence Guidelines, Version 2.1" stored on the Clearinghouse for Labor Evaluation and Research (CLEAR)). They also assess the quality of the studies and organize a research repository where many analyses of the same program are collected and analyzed together. Many studies can provide stronger evidence of a program's effectiveness. There guidelines, funding practices, and research aggregation services provide a context where evaluation efforts can successfully build evidence of program effectiveness.

Few improvements on them could be to elevate the Regression Discontinuity Design (RDD) method to a "high" rated causal inference method, and provide more clarity on the criteria for reviewing evaluation studies and how states can implement the programs found to be effective. Evaluation, labor economic and other scientific journals provide an excellent framework of reference for reviewing studies (e.g., methods, data analysis results and conclusions). Any effort of trying to build a basis for evidence-based policy must also include a valid process for reviewing the studies.

Cloud technologies show also promise in overcoming challenges. They will simplify data sharing by making it easier to merge and manipulate data cross-system data inside a cloud environment, while enabling agencies to grant limited data access to approved external partners within the existing environment.

- This approach should reduce the need for analysts, researchers, or partners to physically download data.
- In most cases, it should also speed and secure data sharing processes by eliminating the need to physically move data.
- In cases where the need to physically move data has been eliminated, cloud technologies will also have eliminated the reliance on third parties to destroy data in accordance with contracted agreements.

4. The Commission on Evidence-Based Policymaking (See: www.cep.gov) recommended the creation of a National Secure Data Service (See Commission Report at www.cep.gov). Do you agree with this recommendation, and if so, what should be the essential features of a National Secure Data Service?

Yes, we agree. The biggest advantage of having such data service established from a statistics perspective is to prevent net impact studies from finding biased results due to missing data problem. Local or state government in their studies evaluating their local workforce program frequently face a situation where they lose outcome data for program participants without knowledge of whether they are missing due to moving out of state or area of interest or being unemployed. Missing data can occur randomly or non-randomly. If it occurs in a non-random way, a bias is introduced. Losing data in a non-random sense is not uncommon, e.g., a computer coding training program in Idaho can produce incentives for the trainees to take a job in more tech-friendly states.

Essential features include:

- Leverage federal data already collected (e.g., WIOA reporting, SWIS and BLS data), and should avoid increasing the reporting burden on states to support the service.
- The service will need to provide simplified data formats designed to be accessible to researchers who may not be data experts.

- The service will need to use well -designed standard data encoding, with ample communication and reasonable timelines to implement changes.
- The service will need high-quality, searchable data definitions that can be easily connected to the data.
- The service will need to provide clear guidance about permitted uses, download / access restrictions, and retention policies.

5. How can federal agencies protect individual and organizational privacy when using data for evidence building? Recommend specific actions the Office of Management and Budget and/or other federal agencies can take when using data for evidence building, as well as suggested changes to federal laws, policies, and procedures.
No input at this time

SECURE DATA ACCESS—

6. If created, how should a data service be structured to best facilitate (1) research and development of secure data access and confidentiality technologies and methods, (2) and agency adoption of those technologies and techniques?
It should be able to provide identifiers of study subject in a secure way. The ID may be encrypted but it must provide researchers the ability to crosswalk with other required information. And such data must have well-written data dictionaries.
Explore cloud technologies and infrastructure. New York University Coleridge Initiative may be a first step example of structuring and securing data access.
For agency adoption, it will require consistency and coordination of federal, state and local regulations, planning, upgrading and funding.

7. Government agencies have argued that secure data access has value because it (1) improves service delivery, (2) improves efficiency (lowers costs), (3) produces metrics for performance measurement, and (4) produces new learnings/insights from the data. Which of these propositions do you agree holds value and why? Do you have examples that demonstrate these benefits? Do you have other examples of the value of secure data access?
The USDOL CLEAR (https://clear.dol.gov/) site holds several studies that include examples that support propositions 1 through 4 and showcase the value of secure data access.

DATA SERVICES TO FEDERAL, STATE, LOCAL AGENCIES AND THE PUBLIC—

8. What are the most pressing data needs of state and local decision makers and how would making data accessible from federal agencies help meet those needs? To share data, what guarantees do data owners (or data controllers) need regarding privacy, data stewardship, and retention?
Data that can be used in causal inference analyses is the most pressing data need that must be addressed to build evidence on program effectiveness. This can be experimental data, or data that is useful for one or more quasi-experimental methods.
Many evaluations and reports would benefit from easy access to other state data. (especially border cities where missing data forms a substantial reporting gap; e.g., Spokane and Vancouver, WA).

9. What are the key problems and use cases where collaborative work between federal, state,

and local authorities' data analysis can inform decisions? What are key decision support tools? How would greater communication about data and tools benefit expanded evidence building?

Monitoring economic cycles, healthcare problems (e.g., viral transmissions and available healthcare services), estimating migrant and seasonal labor supply for seasonal labor demand (e.g., agricultural specialty crop activities (cherry and apple harvest)), estimating demand and supply of out-of-state and foreign labor to meet local labor demand (e.g., agriculture, information technology and healthcare).

Also, evaluations of nationwide programs of policies administer at the state or local level require large sample sizes to study effectively. When many states partner with each other, they can collect larger quantities of data. These larger samples can be used to study a larger number of policies.

INFRASTRUCTURE FOR MEETING PUBLIC AND EVIDENCE BUILDING NEEDS—

10. What basic public data services are essential for a data service to address existing capacity gaps and needs? What infrastructure or incentives can the federal government create that locals and states cannot?

The federal government could:
- Ease legal frameworks for sharing data between agencies and across state lines.
- Make interstate data available via a centralized reporting service
    - Replace current data requests processes related to federal reporting requirement with this service
- Make historical data available through this service (for example, SWIS wage data only goes back 2 years, which makes it data unusable for historical analyses)
- Implement reasonable retention policies for historical data – eg Directory of New Hires data can only be retained for 90 days
- Provide a centralized repository of data tools/ services that are currently fragmented across many federal agencies. These include common lookups and geodata (including political boundaries).
- Provide funding for evaluations.
- Provide guidance on what evaluation methods can be used for net impact studies of program effectiveness and describing how the provided data can be used or has been used in the past.
- Create a platform where evidence-building practices and their findings are shared in an accessible way to all the states and local governments where all policy makers can learn from, and which can constitute a stronger body of evidence together.
- Create incentives for local and state researchers to participate in professional conferences and expand their network with other field experts.

My best,

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Introduction

Fors Marsh Group, LLC (FMG) is pleased to respond to the Request for Information from the Advisory Committee on Data for Evidence Building. In the two years since the Foundations for Evidence-Based Policymaking Act of 2018 was signed into law, federal agencies have taken strides to adopt a culture of evidence-building. Below, we address three questions posed by the Committee (Questions 1, 2, and 3). Our perspective and recommendations are informed by FMG's collaborations with multiple federal agencies on projects that aim to build, disseminate, and put evidence into practice to inform policy.

1. **What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points they face in the evidence-based decision-making process.**

While there are numerous challenges to evidence-based policymaking facing governments at every level, one of the biggest and most difficult to overcome is the wide variety of formats in which government data are stored and shared. This challenge exists across different levels of government – and even between different departments and agencies in a given jurisdiction. These varying data formats create a situation where the desire for an "apples to apples" comparison of data, often the basis for quality evidence-based policymaking, is usually frustrated by a "fruit salad" approach to data capture and storage nationwide. Some of this is due to the decentralized nature of American government, but it can also result from governments' decisions about what vendors to use for data capture and storage, and reflect varying budgetary and legal constraints on what kind of data are collected and how they may be shared.

Lack of consistency between disparate data sources can force would-be evidence-based policymakers to expend time and energy harmonizing different data sets into one that can be used to analyze the desired question(s) at hand. That effort can involve tasks as simple as figuring out which data sets are storing numerical data as text or using different naming conventions for local or tribal jurisdictions – or require more difficult tasks like making value judgments or other key assumptions (calculating per capita rates or choosing a common year for Census estimates) to combine source data sets into one suitable for analysis.

Finally, even if this multi-jurisdictional data harmonization process works, once an evidence-based policymaking analysis is complete it is necessary to translate the results back into a format that can be used by participating jurisdictions. This not only involves a similar

translation process in the "other direction" – but it also requires careful and comprehensive documentation to ensure that the findings of any such analysis are both usable and meaningful for the participating government(s). This is the approach taken, for example, by the multi-state Electronic Registration Information Center to use participating states' voter rolls and other data to identify both ineligible voters who have died or moved as well as eligible but unregistered individuals. States agree to use these latter data to proactively invite eligible individuals to register to vote – and so the data must successfully harmonize with the recipient state's voter files.

Establishing a system to facilitate this harmonization – whether through reporting requirements, data standards, or even technical assistance to government agencies and their data vendors – is a crucial first step in building an evidence-based policymaking regime involving national, state/provincial, and local governments. We recommend that the Committee take steps to encourage and support efforts by governments at all level to develop and adopt data standards, common data definitions and other methods for allowing inter-governmental data sharing in support of evidence-based policymaking.

2. What are examples of high-impact data uses for evidence-based policy making that successfully effected change, reduced costs, or improved the welfare of citizens?

Evidence-based policy making supported by interoperable systems that facilitate data exchange yields economic benefits and delivers enhancements to program administration and recipients. Examples of high-impact data usage can be found among many agencies, such as the Centers for Medicare & Medicaid Services (CMS) and the United States Department of Agriculture (USDA) Food and Nutrition Service (FNS). Through their data-driven approach, they strive to provide outcomes improvement for citizens and assist program administrators. For example, CMS has enacted the Health Information Technology for Economic Clinical Health Act (HITECH Act), established as part of The American Recovery & Reinvestment Act of 2009 (ARRA, or Recovery Act), which made it essential for electronic health records to be interoperable throughout the United States health care delivery system. [1] Furthermore, CMS initiatives like Promoting Interoperability Programs (formerly known as the Medicare and Medicaid Electronic Health Records Incentive Programs) seeks to bolster patient electronic access to health care information, improve digital exchange of health information among payers, providers and patients, and continue to reduce payer and provider burden. [2]

Much like CMS, the USDA FNS Office of Policy Support (OPS), has long implemented the use of high-impact data to conduct evidence-based analysis to achieve operational improvements, better understand food security, provide nutrition education, sustain participation rates, and ensure program integrity. Vital nutritional programs like the Supplemental Nutrition Assistance Program (SNAP) and the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) have benefitted greatly through the development of an electronic benefit transfer (EBT) system, which created a national standard of interoperability established by the Electronic Benefit Transfer Interoperability and Portability Act of 2000 (P.L.

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[1] "Health Information Technology for Economic and Clinical Health (HITECH) Audits," *Centers for Medicare & Medicaid Services*. Aug. 2018. https://www.cms.gov/Medicare/Compliance-and-Audits/Part-A-Cost-Report-Audit-and-Reimbursement/HITECH-Audits

[2] "Promoting Interoperability Programs," Regulations and Guidance. *Centers for Medicare & Medicaid Services*. Jan 2021. https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/index

106-171), thus enhancing operation efficiency and effectiveness for both program administrators and recipients and led to a reduction of food stamp fraud. [3]

While SNAP led EBT implementation early on, the WIC program followed suit and now provides digital benefits to participants as part of the Implementation of the Electronic Benefit Transfer-Related Provisions (P.L. 111-296) under the Healthy, Hunger-Free Kids Act of 2010, which mandated all WIC State Agencies implement EBT by Oct. 2, 2020, thus providing a safer, easier, and more efficient grocery experience and allows for greater flexibility in the way WIC participants can shop. [4] Agencies like USDA FNS and CMS have established systems of interoperability to collect and manage administrative data and support rigorous research to generate evidence through various methods, such as pilot testing and statistical modeling and analysis. Structuring programs in a way that promotes evidence generation informs sound policy and reduces costs, such as the CMS Innovation Center, which tests payment and service delivery models to improve patient care and community health and lower healthcare costs, and the SNAP Online Purchasing Pilot, which is currently testing the feasibility of online SNAP purchases to allow households to make online purchases in a secure and easy to use manner. [5]

We recommend that the Committee support program initiatives by expanding internal capacity-building efforts, evaluate technical assistance needs, and develop a framework for organizational learning to promote a culture of evaluative inquiry. We also recommend to the Committee to improve data standardization and establish interoperable systems accessible to stakeholders, conduct pilot studies, and adopt a tiered evidence approach to assess findings and assess outcomes.

3. Which frameworks, policies, practices, or methods show promise in overcoming challenges experience by governments in their evidence building?

Federal policymakers have a variety of tools at their disposal to promote evidence building. We focus on two examples with demonstrated success over the past decade in multiple agencies: 1) evidence repositories, and 2) tiered evidence grantmaking.

Evidence Repositories. Building an evidence base to effectively inform decision making involves surmounting two critical challenges – identifying *where* evidence exists that is relevant to the decisions at hand and *what* evidence is rigorous enough to consider credible. There is a deluge of information available and the methodological quality used to generate this information ranges from excellent to essentially non-existent. Thus, either challenge may seem insurmountable to decision makers if they do not have the right tools. Evidence repositories are one proven tool.

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[3] "A Short History of SNAP," *United States Department of Agriculture Food and Nutritional Services.* Sept. 2018. https://www.fns.usda.gov/snap/short-history-snap#1992

[4] "WIC: Implementation of the Electronic Benefit Transfer-Related Provisions of PL 111-296 - Final Rule," *United States Department of Agriculture Food and Nutritional Services.* Mar. 2016. https://www.fns.usda.gov/wic/special-supplemental-nutrition-program-women-infants-and-children-wic-implementation-electronic

[5] "SNAP Online Purchasing Pilot," *United States Department of Agriculture Food and Nutritional Services.* Dec. 2020. https://www.fns.usda.gov/snap/online-purchasing-pilot

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Evidence repositories provide a pool of evidence to draw upon to inform decisions. These repositories are topically organized around outcomes, programs, and policies to facilitate use by decisionmakers. Evidence standards are used to ensure the findings included in evidence repositories are credible. Evidence repositories often use evidence standards ratings that indicate the confidence in the research. Research that meets minimal evidence standards would be assigned rating that indicates the research design was less rigorous, whereas more rigorous research (e.g., a well-conducted randomized controlled trial) would receive a rating that reflects a higher tier of confidence.

For increased usability, research in evidence repositories is often presented in products specifically designed to bridge the gap between research and practice. For example, meta-analytic statistical techniques may be used to synthesize findings on a policy's impact on an outcome of interest across multiple studies and present one estimate of the policy's impact to the reader. This estimate may be translated to a categorical indication of effectiveness – for example, a policy may be "not effective," "promising," or "effective." In addition, evidence repository products can be made more accessible to broad audiences by making them short in length and using plain language accompanied by visuals to communicate complex research findings. Examples of evidence repositories include the Department of Education's What Works Clearinghouse, Department of Labor's Clearinghouse for Labor Evaluation and Research, and Department of Justice's Crime Solutions.

Tiered Evidence Grantmaking. Tiered evidence grants allocate funds based on the strength of evidence for the program or approach proposed by a grantee. Programs with stronger evidence are awarded larger amounts and those with lesser evidence are awarded smaller amounts. Tiered evidence grantmaking allows agencies to invest in those programs that are most likely to yield results (because these programs have a body of evidence to support them) while still encouraging innovation and experimentation. This also mitigates risk, as agencies are not locked into allocating grants to programs with weak evidence to support them.

Under tiered evidence grantmaking, applicants must demonstrate evidence of effectiveness as part of their grant applications and conduct an evaluation of their program if they receive an award. Grant recipients are expected to participate in evaluations that generate high-quality evidence, often via a third-party research organization, on the effectiveness of the funded program. A high-quality evaluation is operationalized as being conducted independently, meeting certain design criteria that deem the findings credible, and examining outcomes that are reliable and meaningful.

Federal agencies that adopt tiered evidence grantmaking may support grantees by offering evaluation technical assistance on research design and the standardization of meaningful outcomes. This technical assistance increases the likelihood that evidence generated across grantees will be comparable and therefore useful in making future funding decisions across different state and local settings. Moreover, program evaluation is particularly important because it contributes to the evidence base about effective programs. Funding agencies should draw on this evidence for future grantmaking and, if an evidence repository has been established, completed program evaluations should be recorded for use by other grantees and the field at large.

Tiered evidence grantmaking has most frequently been applied to discretionary grant programs (e.g., ED's Education Innovation and Research competition), though not exclusively. The Title V Maternal and Child Health Services program administered by the Health Resources & Services Administration (HRSA) is a formula grant program that adopted a tiered evidence model in 2015. The success of these programs over the past decade across agencies – ED, CNCS, DOL, and HHS – suggests that they may be expanded elsewhere in the federal government.

We recommend that the Committee develop guidance and advocate for the expansion of evidence repositories and tiered evidence grantmaking across the federal government. This could include raising awareness through FAQs, webinars, and professional learning communities. The Committee could also provide technical assistance on the steps for building repositories and implementing tiered evidence grantmaking, drawing on examples from some of the agencies noted above. Importantly, the Committee should aim to be inclusive when developing guidance or standards, recognizing that the body of evidence in some fields is not as mature as in others. Thus, while randomized controlled trials may be the "gold standard" and applicable to some agencies, the state of evidence building at other agencies may be more formative. Regardless of the stage of maturity, creating repositories and implementing tiered evidence grantmaking will equip policymakers with stronger evidence to guide decision-making.

Comments for the Advisory Committee on Data for Evidence Building

David W. Archer, PhD[1]   Rawane Issa[1,2]   Rebecca N. Wright, PhD[3]
09 February 2021

We are pleased to respond to the *Request for Comments for the Advisory Committee on Data for Evidence Building*. Our perspective on sharing Government data for making evidence-based decisions is that of technology researchers and providers, and privacy advocates. To that end, we restrict our comments to only three of the questions posed in the Request. We offer these comments without advocacy for specific technologies, products, or services. We feel that sharing data while respecting the privacy of the subjects of that data and the confidentiality sometimes required in governance is a much broader challenge than can be addressed by pushing for specific commercial solutions.

Disclaimer: The views of the authors expressed here do not necessarily reflect the views of the organizations that they attend or are employed by. We offer these ideas and viewpoints as private persons with expertise and interest in privacy and technologies that enable privacy.

4. The Commission on Evidence-Based Policymaking (See: www.cep.gov) recommended the creation of a National Secure Data Service (See Commission Report at www.cep.gov). Do you agree with this recommendation, and if so, what should be the essential features of a National Secure Data Service?

We agree that a National Secure Data Service is critical to the successful preservation of data confidentiality and the concomitant efficient and effective sharing of that data. However, we caution that our view of how NSDS should be structured and what its key contributions should be may be different than early, popular interpretations held by some advocates. Specifically, we believe that

- **Standards for data interoperability are critical.** NSDS should have strong, clear standards for data cleaning, schema documentation, and suitability for use specification *prior to accepting data* from data providers. Regarding data cleaning, we note that parties using data are seldom equipped to clean that data, impute missing fields, or check the data for exceptional or out-of-range entries. Regarding schema documentation, we note that parties receiving data often lack an understanding of the data's *semantics*, and thus may be unable to correctly utilize the data to achieve the intended semantics of analytic results they produce. Regarding suitability for use, we

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[1] Galois, Inc.
[2] Boston University
[3] Barnard College

note that data analytics often fail to produce applicable results because analysts may not understand the applicability of data to their analysis. Providers should be required to document assumptions, constraints, and other factors that inform prospective users about when and how their data can be applied.

- **A central "data fortress" is a risk-laden idea.** NSDS should not be organized as a "secure facility perimeter", whether virtual or physical, where authorized users go to access data and perform computation. Perimeter-focused security has a long demonstrated history of being insecure in practice. Instead, data should be held - and "loaned out" for use - by data providers, with true end-to-end protection at rest, in transit, and during computation via strong cryptographic protocols. Prospective users - borrowers - of data should be required to prove to a provider's satisfaction that they can protect the data they borrow in a provable, cryptographic way. The role of the NSDS thus becomes one of a *data catalog*, documenting data availability, connecting users to providers, and attesting to the authorization of each to transact the borrowing and loaning of data.
- **A central "big compute farm" is an unscalable idea**. NSDS should be decentralized from the computation power point of view. Centralized computation will not scale, and is typically hard to use because data users must learn new practices and procedures that distract from doing the business of analysis. Instead, NSDS should let the (appropriately protected) data flow to where computation can be done in familiar and scalable settings.
- **Contractual trust is not enough.** NSDS should require that access to data be based on proven, attested technical security measures, in addition to contractual agreements to keep data secure. We note that contractual agreements play an important role, but provide no protection against insider threats or external compromise, which constitute the majority of data mis-use. In addition, contractual agreements provide only *ex post facto* protections in legal settings, and typically provide no relief to individuals whose personal data may be compromised.
- **Privacy Tech advocacy is key**. NSDS must be *forward-looking*, seeking to be not only a national asset for cataloguing and controlling access to data, but also a national asset for transitioning nascent, proven data privacy technologies into mainstream use.
- **Access control policies should include intended use.** NSDS should establish policies about who may access data. While such access should naturally include attributes of the individuals using the data, the organizations for whom they work, and even at times the nationalities of those organizations (especially in the case of sensitive national information assets), access should also be mediated by the *intended use and distribution of the results* of analysis to be performed. It may be that diverse *editions* of data should be made available, offering more or less content based on that intended use.
- **Time is of the essence of access**. In addition, NSDS should establish policies that require access to data be provably time-bounded: data must be permanently and provably deleted from user systems once allowed use periods have expired. (We note that permanent deletion is nearly impossible, unless the data is only stored in encrypted form and all that must be thoroughly deleted is the decryption key to the data).

- **World citizenship is a responsibility.** NSDS should become an integral part of the United Nations Statistics Division, participating as do the National Statistics Offices of other United Nations member states.

5. How can federal agencies protect individual and organizational privacy when using data for evidence building?

Protection of privacy is exactly protection of private data. That protection is never as easy as we think. In particular, data privacy protection is

- **End to end.** Data should always and only be stored and operated on via cryptographic primitives that are proven secure and widely adopted by the cryptography and security community.
- **More than end to end.** In the case of evidence building via statistical analysis, data should be appropriately obfuscated via differential privacy technology in order to avoid pitfalls of traditional de-anonymization that allow for record reconstructions from statistical outputs.
- **Technically explainable.** Federal agencies should employ metrics that quantify and explain the privacy loss incurred by any (and especially multiple) queries made to data sources they provide. These metrics should be consulted prior to results of queries being released. Such metrics can be for example computed via techniques such as quantitative information flow analysis conducted *at runtime* and before results are released or decrypted.
- **Composable.** When analysis over data is composed of successive operations, those composite operations should be provably secure. Note that compositional security does not necessarily follow from the security of individually secure operations.
- **Proven and standardized.** Federal agencies should standardize and continuously update a set of secure computation protocols that are proven suitably secure for use in inter-agency secure data sharing. This set should only include techniques that have cryptographically proven security. Implementations of such protocols should be formally verified equivalent to the abstract specifications of those protocols.
- **Transparent.** Protocols used by federal agencies for securing privacy should be consistently released to the public in open source form so that their security can be continuously vetted by watchdog organizations.
- **Up to date.** Agencies should together keep a list of protocols that are discovered to be insecure due to known vulnerabilities. This list should be openly shared, and should be consulted by agencies as they make decisions on securing data.

6. If created, how should a data service be structured to best facilitate (1) research and development of secure data access and confidentiality technologies and methods, (2) and agency adoption of those technologies and techniques?

Technology is the easy part of a secure data service. Looking to the future, educating the public, listening and responding, and facilitating are the harder parts. Correctly structuring a secure data service to meet these needs is paramount. The NSDS needs to

- **Look to the future.** NSDS should include a specific subsidiary that sponsors and directs research in 1) improving performance of security measures, because today many relevant measures are very slow; 2) improving usability, because cryptographic techniques are hard to use and require substantial but rare skills to use correctly; and 3) extending secure data sharing techniques to apply to additional domains. This sponsorship might be patterned after the Broad Area Announcements used to sponsor research today in several Government research agencies.
- **Educate Congress and the public.** NSDS should include an education subsidiary to elevate the public's understanding of how NSDS techniques protect personal privacy. This subsidiary should also advocate at US universities for the creation of specific research initiatives aimed to research and solve fundamental theoretical challenges needed for the future of assuring data privacy.
- **Listen and respond.** NSDS should include an Office of the Ombudsman to listen actively to concerns of US citizens about privacy involving data catalogued by NSDS. This office should address those concerns either by 1) changing NSDS policy; 2) requiring the research subsidiary to create new programs to address the concern; or 3) requiring the education subsidiary to improve educational resources to resolve concerns due to misunderstandings.
- **Enable and uplift.** NSDS should include an Application Services team that builds and deploys *de novo* application solutions for federal agencies who wish to use secure data sharing approaches, but do not have the expertise or resources to implement such solutions.
- **Grow and offer value.** NSDS should include (as described above) a comprehensive Data Catalog service, with a group of *librarians* who actively seek out new data sets to add to that catalog, and work with providers of that data so that it meets the standards for inclusion in the catalog.
- **Measure and relentlessly improve.** NSDS should include a technical advisory board tasked with identifying appropriate quantitative metrics for privacy and utility, and tasked with technical review and evaluation of proposed research projects and their outcomes from the research subsidiary.

"Comments for the Advisory Committee on Data for Evidence Building'

Robert Goerge, Chapin Hall at the University of Chicago

February 9, 2021

1.   What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points they face in the evidence-based decision-making process.

A culture of evidence-building in federal, state and local government is nearly totally absent. These agencies are, in most cases, the source of data by which to produce evidence. Researchers getting access to data that can be used for evidence-building is the major barrier to building a basis for evidence-based policy. Government agencies are typically resistant to having their programs or policies evaluated because there is typically no tangible benefit to the agency. All government agencies, by rule, avoid risks. Providing data to organizations or individuals that can create evidence about their programs may not produce results that show the agency's program is effective. Agency leaders risk criticism or termination as a result of negative results of an evaluation.

In addition, there are many special interests that advocate for government agencies NOT supporting activities that create evidence. Evidence can support or threaten a special interest, but most do not see the benefit of taking the risk of showing a program is ineffective.   Private organizations that subcontract for the provision of government services and labor unions may not benefit from evidence that shows that services don't work.

Evidence-building needs to be a permanent, ongoing activity.   There is so little fidelity to any particular type of intervention (other than providing direct transfers) that each replication is a unique intervention. In addition, programs are constantly experiencing changes in context, external conditions, population need and personnel that rigorous evaluation should be an ongoing activity of every government agency.

Doing many RCTs would be ideal, but rigorous non-experimental evaluations can also contribute to the evidence-base. A place to start would simply be focusing on the outcomes of programs in order to create a culture of evidence-building at all levels of government.

See Goerge RM. Barriers to Accessing State Data and Approaches to Addressing Them. The ANNALS of the American Academy of Political and Social Science. 2018;675(1):122-137. doi:10.1177/0002716217741257

2.   What are examples of high-impact data uses for evidence-based policy making that successfully effected change, reduced costs, or improved the welfare of citizens?

Courtney, Mark., & Dworsky, Amy. (2006). Short-term outcomes for young adults transitioning from out-of-home care in the U.S. *Child and Family Social Work, 11, 209-219.*Dworsky, A. (2005). Self-sufficiency of Wisconsin's former foster youth. *Children and Youth Services Review, 27,* 1085-1118.

This is one citation for work done by Courtney and Dworsky. It is an example of the investigators working with state agencies to implement new policies and programs, evaluate the programs and then work to improve them.

3.   Which frameworks, policies, practices, or methods show promise in overcoming challenges experienced by governments in their evidence building?

Government agencies must be required to build evidence and constantly evaluate their programs. A portion of each programmatic budget should go to formal evaluation. There should be major incentives for agencies to evaluate their program and penalties for agencies that do not have recent evaluations of their programs. They should be required to employ or contract with qualified researchers. External peer review of proposals should be put in place with every agency. There must be special circumstances *to not* evaluate program, rather than, as it is currently, being a special circumstance when a rigorous evaluation does occur.

4. The Commission on Evidence-Based Policymaking (See: *www.cep.gov*) recommended the creation of a National Secure Data Service (See Commission Report at *www.cep.gov*). Do you agree with this recommendation, and if so, what should be the essential features of a National Secure Data Service?

No, I do not agree with this recommendation. *The primary obstacle to building evidence is providing data to qualified researchers in a timely manner. Secure clearinghouses or archives with up to date data should be established.* These clearinghouses should contain curated datasets with permitted uses that do not require additional sign off for use. Other than

convincing an agency to do an RCT, the most difficult part of evidence-building using administrative data is getting access and permission to use the data. If the data is not already available and permission is not already in place, it can take years to implement an evidence-building effort. This is what needs to be streamlined, not the technical issues of extracting data and getting it linked.

If an investigator has data from a study population that he or she has collected through any means, he or she should be able to upload the data to a secure site where 1) important datasets (listed below) already exist, 2) with sufficient metadata to guide the investigator, and 3) with documentation and established code that previous investigators have used. If proper security protections are in place (that protect identities), there should a trivial permissions process. All of this should be available to a credible researcher who is building evidence. The linkage should be trivial since the necessary identifiers or the path to linking through other means either does or does not exist. The NSDS, as I understand it, would not have 1 or 3 above.

The Census Bureau already has an adequate capacity to do the technical aspects of creating datasets and providing secure access, but the primary problem is that they do not have the ability to access data necessary to build evidence. SSA, SSI, IRS, SNAP, UI (NDNH), WIC, Medicaid, K-12 education, post-secondary education, and CCDF are programs where the datasets are difficult to access because of legal restrictions, not technical ones. There may be restrictions around sharing (SSA) or specifically sharing for research purposes (SNAP and WIC, IRS). There may be problems because sufficient linking variables are not collected at the federal level even if collected by states. There are other restrictions at the state level—variable across states (UI, Medicaid). And, the federal government is not even allowed to maintain education datasets, but Census can IF the data holders agree. Recommendations 2-5, 2-6, and 2-7 of the CEP report speaks to these issues.

Having done an IPA at the Census Bureau's CARRA and having done other major projects linking investigator-supplied state or local datasets to federal datasets, I am convinced that the barriers are legal and organizational. Legal ones needs to be address by Congress. Organizational ones primarily have to deal with their being unclear governance procedures or too many individuals in positions of authority who can say "No" to a project for any idiosyncratic reason. Perhaps, Recommendation 2-8 speaks to this issue.

Since access to data is the biggest obstacle to building evidence, the argument that a NSDS would address an obstacle that is preventing evidence building is unclear. Protecting privacy, the biggest argument for an NSDS, is not that difficult and has already been demonstrated in multiple places. If the primary activity is to provide a linking service to researchers, it would be creating something that is really not necessary. Multiple organizations should house data that can be used to create evidence in an ongoing way.

Finally, the NSDS should <u>not</u> be in a Federal agency (Rec.. 4-1). It should sit in a private organization with Federal oversight and funding. It should not be managed by one government entity that can control the data. **It should be a partnership among local, state and federal agencies, along with private sector data producers.**

See two examples under question 5 below that further describe my vision of a NSDS.

4.   How can federal agencies protect individual and organizational privacy when using data for evidence building? Recommend specific actions the Office of Management and Budget and/or other federal agencies can take when using data for evidence building, as well as suggested changes to federal laws, policies, and procedures.

Procedures and policies have already been developed and simply need to be enforced. Have there been major breaches in research environments? The 5 Safes already provide a framework. Practices used in the FSRDCs, in the Coleridge Initiative ADRF, and in other archives already protect individual and organizational privacy. Privacy protection is a red herring used to prevent the building of evidence.

5.   If created, how should a data service be structured to best facilitate (1) research and development of secure data access and confidentiality technologies and methods, (2) and agency adoption of those technologies and techniques?

A data service that houses important datasets (employment, tax, health, disability, nutrition, income maintenance, education, employment and training) that are ready to access with a simple application.

Two examples may better delineate what I am suggesting.

Example 1. University or research organization investigator

An investigator has implemented an RCT which tests how families benefit from different interventions designed to increase the nutrition of their food intake. This may lead to actual better nutrition or accessing benefits and services that provide resources to purchase food. The research has an approved protocol through an Institutional Review Board to project human subjects. Adults have provided consent to link to a specific set of administrative records—SNAP, WIC, UI data and IRS tax data.

The investigator should be able to send his dataset with the proper protections in the proper format with the necessary identifiers to a clearinghouse. This data should be linked to national SNAP, WIC, UI and IRS data and a deidentified dataset should be made available to that investigator within days so the investigator has the full history of these data for all of the study families. These data should remain in a secure facility and any data exported from it should go through a thorough disclosure review consistent with the IRB protocol.

Example 2

A state agency has implemented a new work requirement for a systematic sample of program participants. This state agency should be able to submit a dataset with information from these program participants to gather information on their SSA, SSI, SNAP, UI benefit and wage, TANF, and CCDF program participation and be able to determine whether their new work requirement has a positive impact one earnings, social program participation, and work support utilization on the sample of program participants. These data should also be maintained in a secure facility. Given that the participants are state program participants, state policy should determine how the data on these participants can be used.

8. What are the most pressing data needs of state and local decision makers and how would making data accessible from federal agencies help meet those needs? To share data, what

guarantees do data owners (or data controllers) need regarding privacy, data stewardship, and retention?

The primary obstacle to building evidence is providing permission to qualified researchers to access data. In most cases, state and local decision-makers require data from across government agencies. Programs and data are in silos that prevent the combining of data on program provision and outcomes of those programs. Employment data is the best example and employment data from any agency is incomplete. The accurately build evidence on human capital building programs (education, job training…), data from state and federal agencies (like that in NDNH plus IRS data) is necessary. Data on these human capital programs (education and training) are held or control by the same agencies that collect employment data. And, multi-state employment data is necessary because in many cases employers are out-of-state or employees do not always work in states in which they reside.

10. What basic public data services are essential for a data service to address existing capacity gaps and needs? What infrastructure or incentives can the federal government create that locals and states cannot?

The federal government can provide funding, but it is unable to adequately operate a data service that can efficiently contribute to evidence-building. Trust in the federal government, primarily by state and local government leaders, as well as the sluggishness in the federal government (or any level of government) getting things done, make them a poor implementer of public data services. Many states and localities would prefer not to send their data to the federal government, where they lose access and control and don't know what is being done with data that they have collected. It's understood that much state and local data is collected using funding from by the federal government, but the state and local governments feel exert stewardship over these data and know that they are a tool to determine penalties and action against them. In addition, federal government has not been effective, to date, in producing datasets and providing access that support evidence-building, in part, because they are ineffective in getting local, state and federal agencies to support research and evaluation. Only a few states have created a culture where evidence is valued. When the federal government puts out announcements for data-building opportunities, most states do not apply.

Any national (not federal) data service needs to be a partnership among federal, state and local government agencies, and private organizations that maintain data sets important for evidence-building, such as the National Student Clearinghouse.

ICPSR

Inter-university Consortium for Political and Social Research

February 9, 2021

Office of the Under Secretary for Economic Affairs
Department of Commerce
1401 Constitution Ave NW
Washington, DC 20230
Sent via email: Evidence@bea.gov

To whom it may concern:

On behalf of the Inter-university Consortium for Political and Social Research (ICPSR), I am pleased to submit the following comments in response to Federal Register notice "Comments for the Advisory Committee on Data for Evidence Building" Docket Number EAB 2021-0001 (86 FR 5131). Our responses address each of the ten questions in turn.

1. What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points they face in the evidence-based decision-making process.

In many cases, the availability of data that is perfectly safe for individuals to use is not possible because there are no resources for state and local governments to make those data available. The lack of accessible public-use data undermines trust in evidence and evidence-building. To build that trust, it is critical to provide data resources not just to experts and insiders, but to people in communities across America. For state and local governments, and for evidence builders generally, the single most important action the federal government could take is to support open data portals by local governments. These give people information about their own communities and build capacity within those communities to manage and analyze data. Similarly, investment in education, at the K-12 and postsecondary levels, in empirical reasoning and data-driven mathematics, would significantly enhance the country's capacity to make use of data resources.

One very basic challenge faced by evidence-builders is difficulty in determining the existence of appropriate data. Well-documented inventories with appropriate, searchable and machine-actionable metadata describing data resources would have an enormous impact. ResearchDataGov, the single portal of the Federal Statistical Research Data Centers (FSRDCs), is a step in the right direction for improving discovery of the restricted data resources of many of the principal statistical agencies. The FSRDC's website now provides descriptions of many of the datasets available in the FSRDCs as well as the 600+ projects using Census data in the FSRDCs. These are important steps in improving the discoverability of data resources. Full participation

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of all the principal statistical agencies in the single portal, as envisioned by the Evidence Act, would make a considerable difference. Inclusion of data inventories from non-statistical agencies would greatly broaden the visibility of such data. Because both ResearchDataGov and Data.gov leverage schema.org metadata, interoperability becomes possible. Similarly, encouraging -- and providing resources to -- state and local governments to create inventories of their data resources in standardized formats, could build capacity within state and local governments for managing and analyzing data, and make it possible for evidence-builders to integrate state and local data.

Even when data resources are discoverable, access is often challenging. Access includes permission for a user or group of analysts to access the data, a safe and well-designed computing environment for accessing the data, and the ability to pay any associated fees with accessing and analyzing data. Access to data that contains sensitive and private information about individuals, or that is collected with the promise that the data will be kept confidential, must be limited, and those limits inevitably create barriers. Those limits are critical for protecting the people and organization of the United States from both public and private infringements. It is, however, possible to simplify and streamline the process for providing permissions for access in a manner that will facilitate evidence-building while protecting individuals, groups, and trust in the government generally and the statistical agencies in particular. The Five Safes approach is very useful in thinking about how to accomplish this. First, an efficient review process (such as is facilitated by the single portal, ResearchDataGov) helps ensure that only **safe projects** have access to the data, while reducing long delays that often plague reviews, especially when data from multiple sources is necessary, or when there are multiple custodians for a single project. Second, timely credentialing of **safe people** is critical, as this can also add long delays that undermine the usefulness of evidence-building. In many cases, background checks for evidence-builders take a back seat to federal employees, so ensuring that there are sufficient resources and perhaps a separate and more appropriate pathway for analysts contributing to evidence-building would also improve access. ICPSR's Researcher Passport is designed to credential safe researchers, providing them with a transferable digital identity documenting their experience with restricted data. It is also designed to *create* safe researchers, by providing them with training that helps them to understand the how and why of data confidentiality protection as well as their responsibility to the people whose lives are represented in the data that they may access. **Safe places** are also critical. There are numerous physical and virtual enclaves both within the federal statistical system and in the broader research community. For example, ICPSR hosts a physical enclave which provides access to very sensitive data from US and European statistical agencies. It also hosts a virtual enclave that provides access for hundreds of researchers to a wide range of data resources. Similarly, the University of Michigan's Institute for Social Research hosts both a physical enclave and a virtual enclave for linked survey and administrative data from the Panel Study of Income Dynamics and the Health and Retirement Study. **Safe outputs** are made possible in each of these environments both by training researchers in confidentiality protection and by facilitating third-party disclosure review.

2. What are examples of high-impact data uses for evidence-based policy making that successfully effected change, reduced costs, or improved the welfare of citizens?

A great example of the public benefits of evidence-based analysis is the work of Professor Luke Shaefer of the University of Michigan. Shaefer's research uses both administrative and survey

data, including novel products of the U.S. statistical system such as the Synthetic Survey of Income and Program Participation, and state administrative data, such as the State of Michigan's Unemployment Insurance (UI) records. Dr. Shaefer's analyses have examined the impact of state and federal policies on outcomes such as child welfare, hunger, homelessness, and access to dental care. While working with State of Michigan UI data, he identified a problem with a deduplication program that the State of Michigan used from 2013-2015 to identify people who might be fraudulently claiming unemployment insurance. Thousands of people were incorrectly removed from UI and fined for fraud; without Shaefer's analysis of these data, this egregious harm would never have been detected. (See a November 2020 Detroit News article on the resulting lawsuit for more information.) Shaefer's work provides an important example of the importance of access to data resources for evidence-building, not simply because of his many scientific publications and policy analyses that can and should inform social and economic policy. His work provides an important example of the unintended benefits that can arise from having scientists and analysts look carefully at administrative data with fresh eyes. His analysis allowed him to see problems with the administration of a critical program that were missed and ignored by those focused on its day to day administration.

3. Which frameworks, policies, practices, or methods show promise in overcoming challenges experienced by governments in their evidence building?

Very generally, the Five Safes approach is useful in thinking about how to make data available for evidence-building and scientific research. It places technical solutions, including computing platforms (safe places) and statistical disclosure control (safe data and safe output) into a necessary broader social, legal, and ethical context in which we also pay attention to safe people and safe projects.

More specifically, the collaborative efforts of the statistical agencies and academic institutional partners have created the Federal Statistical Research Data Center (FSRDCs). The FSRDCs are an excellent model of how it is possible, with considerable persistence, to create an institution that now has well over a thousand researchers analyzing survey and administrative data from over a dozen federal agencies. These well-vetted researchers and their well-vetted projects use secure virtual access or work in one of 32 secure physical locations around the country. All output goes through third-party disclosure review. The FSRDC model has improved over time, with reductions in review times and increases in modes and locations of access.

Another excellent model is the National Archive for Criminal Justice Data (NACJD), based at ICPSR. For over 40 years, NACJD has provided the user community (academics, policymakers, journalists) with access to high quality, well-documented data from the Bureau of Justice Statistics. NACJD relies on tiered access to data. Some NACJD data is publicly available. Some are available for use on a secure local computer with a restricted data use agreement. Other data require work in a virtual data enclave (VDE). The most sensitive data are available in a physical data enclave (PDE). All data are de-identified, and analyses conducted in the VDE and PDE require third-party disclosure review. As is the case for the FSRDC network, NACJD demonstrates the value of broad collaborations between universities and statistical agencies. NACJD is a collaboration between BJS and ICPSR, and ICPSR is itself a consortium of almost 800 colleges and universities, research organizations, statistical agencies, and private companies. These broad academic-government collaborations facilitate access, transparency, and trust.

If an NSDS is created along the lines recommended in the report, in which data are linked but then not kept so as to avoid the creation of a data warehouse that might impinge on privacy, linked data should be archived in the FSRDCs so that they can be accessed for reproducibility and the improvement of data linkage practices. While linkage methodologies are not the most exciting subject, they can have serious consequences for evidence-building and program administration (as suggested in the discussion of the fiasco that resulted for thousands of Michiganders when the State of Michigan used a low-quality deduplication algorithm with no transparency). For example, if analysts prioritize increasing a match rate, they may also generate many false positives. This will bias downward the estimates of the effects of any treatment or policy. Alternatively, if researchers throw away "non-matches" or individuals that cannot be uniquely matched to others, they may create datasets in which people from ethnicities with fewer distinct names are underrepresented. This is true of Hispanic and Korean names. Inference from analyses of data that exclude or underrepresent groups is likely to be biased and inequitable. It is therefore imperative that there be transparency and reproducibility with respect to linkages of datasets conducted by the NSDS. This will allow linkage procedures to be examined and improved; it will also create conditions for trust in any analysis of linked data.

The federal statistical community should be commended for the lack of breaches to privacy and confidentiality across its system. Across multiple agencies, data collections, and modes of access to vast amounts of data, there have been no cases in which individual identifying information has been made public or used in ways that undermine privacy by analysts or evidence-builders. The potential for confidentiality breaches exists, and the ease at which such breaches might occur has increased as a result of the increased availability of information about individuals and increased computational power. But the real threats to the privacy of Americans have come from policy decisions to use statistical data inappropriately, not from access by analysts or from the production of public use data products. The procedures that the statistical agencies have in place for producing **safe data** have been effective. They require ongoing modernization, given increased risks, but increased protection must be weighed against the degradation of the utility of the data. It is critical to have policies and laws that enforce firewalls between data used for statistical and evidence-building purposes and data used for enforcement and implementation of laws and policies. It is critical that there be transparency around statistical products that are used for high-powered decision making, including the allocation of dollars and political power.

If an NSDS is created, it should be organized in a manner that brings our principal statistical agencies closer together, rather than increasing fragmentation. Collaboration will improve efficiency and increase data quality, particularly when it comes to creating measurement and inference from diverse types of organic data.

The thousands of scientific publications that have resulted from researchers who have accessed non-public data from NACJD (BJS) and the FSRDCs (Census, NCHS, AHRQ, BEA, BLS, NCSES) have provided the basis for improved understanding of policies around criminal justice, employment and economic growth, health, poverty, and more. Almost everything we know about how to improve health care delivery and organization is the result of analyses of data from NCHS, AHRQ, and CMS (Medicare and Medicaid). Our understanding of inequality and the relationship between local policies and the intergenerational transmission of poverty and inequality has been transformed by the work of the researchers at Opportunity Insights. Our understanding of the determinants of economic dynamism and productivity growth has been transformed by the collaborative efforts of John Haltiwanger, Ron Jarmin, Lucia Foster, and others inside and outside the federal statistical system.

Collaborations between academic and federal researchers in the FSRDC network have led to the creation of new data products that inform employment and workforce development policy (e.g., Quarterly Workforce Indicators, Job to Job Flows, and On the Map), science and education policy (e.g., IRIS), and economic policy (e.g., MOPS, Opportunity Insights).

State and local decision-makers benefit when they (or their analysts) can access federal data that allows them to examine the impact of their policies on people or organizations that move across state borders. For example, state universities trying to measure the impact of the educational opportunities they offer want to be able to examine both those students who remain in the state after graduation and those that migrate out of state. States also need to place their policies in the context of those implemented in other states (e.g., Medicaid expansion might have very different implications for states if bordering states adopted different policies). Very generally, one of the benefits of our federal system is that we have fifty ongoing experiments in social, economic, environmental, health, etc. policy. We can only learn from them if we have consistent and integrated measurement.

Federal policy can facilitate the data sharing necessary for such analysis in several ways. Policies that build trust between the state and federal government are critical, as are policies that build capacity at the state level. When there has not been sufficient investment in state capacity, data sharing is more expensive and the resulting data lower quality. The establishment at the federal level of standardized metadata would facilitate data sharing, and would limit the ability of private organizations to impede data sharing for private gain.

Collaborative work between federal, state, and local authorities could improve evidence base for and policies addressing everything from criminal justice to poverty to education to health to

climate to jobs. There are a number of data resources that states regularly use that have limited usefulness because of the mobility of the US population. Datasets that draw on state data resources to create national data resources improve estimates of the impact of policies on inter-state migrants and would be very helpful for both local, state, and federal policy makers.

10. What basic public data services are essential for a data service to address existing capacity gaps and needs? What infrastructure or incentives can the federal government create that locals and states cannot?

The federal government can both invest in capacity building at the state and local level and use its investments at the federal level to reduce the burden on state and local governments. In doing so, it will increase the efficiency and the quality of data resources. For example, if the federal government provided consistent technology and technological support and standards that states could coalesce to state vital statistics departments and the health institutions (e.g., hospitals, nursing homes, prisons) that report to them, we could have high quality and timely national data on deaths from COVID or maternal mortality with important covariates such as race and occupation. Instead, we face national health crises with information we know is flawed, and must make decisions based on that flawed data. We can do better.
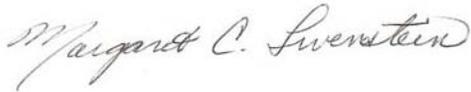
Sincerely,

Margaret C. Levenstein
ICPSR Director

February 9, 2021

Lucas Hitt
Designated Federal Official
Advisory Committee on Data for Evidence Building
4600 Silver Hill Road
Washington, D.C. 20233

Submitted through www.regulations.gov

Re: Comments for the Advisory Committee on Data for Evidence Building, Document Number: 2020-27489, 85 FR 81179

Dear Mr. Hitt:

On behalf of The Leadership Conference on Civil and Human Rights, a coalition charged by its diverse membership of more than 220 national organizations to promote and protect the civil and human rights of all persons in the United States, we appreciate the opportunity to provide comments as requested by the Advisory Committee on Data for Evidence Building.[1] Our comments will focus on questions 2, 3, 5, and 8:

> *2. What are examples of high-impact data use for evidence-based policy making that successfully effected change, reduced costs, or improved the welfare of citizens?*
> *3. Which frameworks, policies, practices, or methods show promise in overcoming challenges experienced by governments in their evidence building?*
> *5. How can federal agencies protect individual and organizational privacy when using data for evidence building?*
> *8. What are the most pressing data needs of state and local decision makers and how would making data accessible from federal agencies help meet those needs? To share data, what guarantees do data owners (or data controllers) need regarding privacy, data stewardship, and retention?*

In brief, we believe federal agencies must prioritize the collection of civil rights data because accurate and robust data are necessary to understand barriers to social and economic opportunity, ensure equal treatment under the law, and monitor the progress of government programs meant to close opportunity gaps as opposed to further entrench them.[2]

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[1] *Request for Comments for the Advisory Committee on Data for Evidence Building*, 85 FR 81179 (December 15, 2020) https://www.federalregister.gov/documents/2020/12/15/2020-27489/request-for-comments-for-the-advisory-committee-on-data-for-evidence-building.
[2] *Misinformation Nation: The Threat to America's Federal Data and Civil Rights*, The Leadership Conference Education Fund (December 2017) http://civilrightsdocs.info/pdf/policy/Data-Policy-Brief.pdf.

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In 2019, our sister organization, The Leadership Conference Education Fund, published a paper underscoring the importance of federal data collection and offering principles that will ensure the continued availability and value of federal data for civil rights policy and enforcement purposes:[3]

1. *Prioritize public input for civil rights data.*

Federal statistical agencies exist for the purpose of providing objective, accurate information that is relevant for policy and public use by a wide range of stakeholders.[4] As both end-users of federal government data and, often, as representatives of vulnerable communities, civil rights organizations and leaders offer a perspective on the value and importance of specific data collections that federal agencies themselves do not always have. That perspective is lost when federal agencies or the White House make decisions about data collections without seeking the perspective of external advocates, as was the case with the Office of Management and Budget's cancellation of the Equal Employment Opportunity Commission's equal pay data collection. Federal agencies should consistently provide notice and an opportunity for public comment by all affected stakeholders when any change in a current data collection would affect civil rights policy or enforcement.

2. *Maintain public accessibility of civil rights data.*

The public not only pays for federal data collection, processing, and analysis through tax dollars, but also is the source for a significant portion of federal data through its role as respondents, directly or indirectly.[5] Federal statistical agencies, therefore, should recognize the public's "ownership" of data products and should scrupulously uphold their public availability. The previous administration took unprecedented steps to remove federal data from the public domain, as with the drastic reduction in data tables in the 2017 Crime in the United States report. Civil rights-related data and other information that could help policymakers, advocates, and litigators address the distinct needs of vulnerable populations should always be made publicly available, subject only to constraints necessary to protect confidentiality or personal privacy.

3. *Collect data that enhances the visibility of all communities.*

Inclusion in federal data collection programs is a critical way to ensure the visibility of and attention to diverse marginalized communities. Whether the disaggregation of data about Asian Americans and Pacific Islanders, cross-tabulation that describes the experiences of African American women, or data about recent immigrants in the labor force, information about all people is critical to ensuring that communities are seen, and their needs are addressed. LGBTQ individuals and families face heightened levels of poverty, economic vulnerability, and discrimination across all areas of civic life (including in employment, housing, education, and health care), with accompanying difficulty accessing federal

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[3] *Misinformation Nation II: A Deeper Dive into Threats to Federal Civil Rights Data Collection*, The Leadership Conference Education Fund (March 2019) http://civilrightsdocs.info/pdf/reports/Misinformation-Nation-2.pdf.
[4] National Research Council, *National Academy of Sciences, Principles and Practices for a Federal Statistical Agency* 41 (6th ed. 2017).
[5] Id.

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programs.[6] The specific attacks by the previous administration on data about the LGBTQ community made it considerably more difficult to address these problems. Withholding data from legislators, policy-makers, and advocates denied them the tools they need to comprehensively assess LGBTQ-related policies, estimate the impact of those policies, and advocate for the fair treatment of LGBTQ people.[7] An attack on data about one community undermines our understanding of all communities.

4. *Adopt the principles from the Civil Rights, Privacy, and Technology Table.*

Technological progress should promote equity and justice as it enhances safety, economic opportunity, and convenience for everyone. But far too often, people subject to historical and ongoing discrimination — including Black, Indigenous, and all communities of color; religious and ethnic minorities; people living on low-income; the LGBTQ community; people with disabilities; people who have been incarcerated; women; and others — face disproportionate surveillance and bear the brunt of harms amplified by new technologies. There is an urgent need for new legal protections to ensure that technology is designed and used in ways that respect civil rights, preserve privacy, ensure transparency, and hold both nation-states and companies accountable for harm. In 2020, The Leadership Conference, joined by 24 groups, updated the Civil Rights Principles for the Era of Big Data[8] and proposed a set of civil rights protections, including:

- Ending High-Tech Profiling
    - Surveillance technologies are empowering governments and companies to collect and analyze vast amounts of information about people. Too often, these tools are deployed without proper safeguards, or are themselves biased. In some cases, surveillance technologies should simply never be deployed. In other cases, clear limitations and robust auditing mechanisms are needed to ensure that these tools are used in a responsible and equitable way. The law should hold both the government and private actors accountable for abuses.
- Ensuring Justice in Automated Decisions
    - Statistical technologies, including machine learning, are informing important decisions in areas such as employment, health, education, lending, housing, immigration, and the criminal legal system. Decision-making technologies too often replicate and amplify patterns of discrimination in society. These tools must be judged not only by their design but also, even primarily, by their impacts – especially on communities that have been historically marginalized. Transparency and oversight are imperative to ensuring that these systems promote just and equitable outcomes, and in many cases the best outcome is to not use automated tools in high-stakes decisions at all.

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[6] *E.g.*, M.V. Lee Badgett, Laura E. Durso, & Alyssa Schneebaum, *New Patterns of Poverty in the Lesbian, Gay, and Bisexual Community* (June 2013) https://williamsinstitute.law.ucla.edu/wp-content/uploads/LGB-Poverty-Update-Jun-2013.pdf; Jaime M. Grant, Lisa A. Mottet, & Justin Tanis, *Injustice at Every Turn: A Report of the National Transgender Discrimination Survey* (2011) http://endtransdiscrimination.org/PDFs/NTDS_Report.pdf.
[7] See Federal Interagency Working Group on Improving Measurement of Sexual Orientation and Gender Identity in Federal Surveys, *Current Measures of Sexual Orientation and Gender Identity in Federal Surveys* 3 (Aug. 2016).
[8] The Leadership Conference on Civil and Human Rights, *Civil Rights Principles for the Era of Big Data* (2014) http://archives.civilrights.org/press/2014/civil-rights-principles-big-data.html.

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- Preserving Constitutional Principles
  - Enforcement of constitutional principles such as equal protection and due process must keep pace with government use of technology. Search warrant requirements and other limitations on surveillance and policing are critical to protecting fundamental civil rights and civil liberties, especially for communities who have been historically marginalized and subject to disproportionate government surveillance. Moreover, governments should not compel companies to build technologies that undermine basic rights, including freedom of expression, privacy, and freedom of association.
- Ensuring that Technology Serves People Historically Subject to Discrimination
  - Technology should not merely avoid harm, but actively make people's lives better. Governments, companies, and individuals who design and deploy technology should strive to mitigate societal inequities. This includes improving access to the internet and addressing biases in data and decision-making. Technologies should be deployed in close consultation with the most affected communities, especially those who have historically suffered the harms of discrimination.
- Defining Responsible Use of Personal Information and Enhancing Individual Rights
  - Corporations have pervasive access to people's personal data, which can lead to discriminatory, predatory, and unsafe practices. Personal data collected by companies also often end up in the hands of the government, either through the direct sale of personal data or through data-driven systems purpose-built for the government. Clear baseline protections for data collection, including both primary and secondary uses of data, should be enacted to help prevent these harms.
- Making Systems Transparent and Accountable
  - Governments and corporations must provide people with clear, concise, and easily accessible information on what data they collect and how it is used. This information can help equip advocates and individuals with the information to ensure that technologies are used in equitable and just ways. Any technology that has a consequential impact on people's lives should be deployed with a comprehensive, accessible, and fair appeals process with robust mechanisms for enforcement, and governments and corporations must be accountable for any misuse of technology or data. When careful examination reveals that a new, invasive technology poses threats to civil rights and civil liberties, such technology should not be used under any circumstance.[9]

5. *Appoint nonpartisan professionals to leadership positions.*

Finally, the previous administration's staffing approaches for key leadership positions at the Bureau of Justice Statistics and elsewhere demonstrated disregard for the longstanding norm that federal statistical agencies should be led by qualified, nonpartisan professionals with relevant subject-matter expertise and management experience. Even worse than lacking relevant qualifications, the previous administration's appointees appeared in some cases to be hostile to the imperative that federal data allow for the ongoing implementation and monitoring of civil rights laws and policies. Statistical agencies that collect data for

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[9] Civil Rights, Privacy, and Technology Table, *Principles* (2020) https://www.civilrightstable.org/principles/.

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civil rights purposes should be insulated from partisan efforts to divert or curtail their agendas, and the norm of nonpartisan, professional, and experienced leadership should be restored.

Civil and human rights advocates have long supported the federal government's collection and analysis of data in a way that enhances the enforcement of civil rights laws and facilitates a better understanding of barriers to opportunity for diverse communities throughout the country. Rigorous collection of reliable and meaningful data for civil rights purposes must therefore remain a core activity of federal agencies.

Thank you for embarking on this important process. We are ready to work with you to ensure that the voices of the civil and human rights community are heard in this important, ongoing national conversation. If you have any questions about these comments, please contact Bertram Lee, Media/Tech Counsel, at lee@civilrights.org.

Sincerely,

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Executive Vice President for Government Affairs

February 9, 2021

Dear Members of the Advisory Committee on Data for Evidence Building:

Thank you for giving Mathematica and other members of the data community an opportunity to provide input into the work of the Advisory Committee on Data for Evidence Building. I am pleased to represent my Mathematica colleagues. For more than 50 years, Mathematica has been at the forefront of uncovering data and evidence in support of informed decision making, as well as effective and efficient policies and programs across all levels of government.

In response to Questions 1, 2, 3, 4, and 9, as published in *Federal Register* no. 2021-01092, my colleagues and I respectfully submit the following comments. We share these insights in the hope that they help to inform your work and facilitate important discussions among committee members, federal agencies, and the broader data community.

1. What are the main challenges faced by national, state, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points they face in the evidence-based decision-making process.

Federal, state, and local governments face a complicated and complex set of challenges in building a foundation for evidence-based policy that they can easily put into operation. Data sharing—whether within states, between states, or between states and the federal government—is a critical challenge. For example, it is difficult (or even impossible) to look across Medicaid, Supplemental Nutrition Assistance Program (SNAP), unemployment, and education data, which all may impact the same individual or family. In fact, many organizations lack basic outcomes data that indicate whether their interventions or programs "work," or influence intended outcomes. There is a critical need for better interoperability of data across programs and agencies at the national, state, and local levels. For this reason, establishing a National Secure Data Service (as discussed in Question 4) could have a long-lasting impact, if developed properly.

Additionally, capacity constraints within states can often impede progress. Compliance with federal data collection requirements, for example, is often hindered by limited resources and staff capacity constraints. Furthermore, variation in terminology and in the definitions of data classifications, and federal requirements governing the storage and location of relevant data, only compound the issue. In states, service providers, who tend to be on the frontlines of data collection, have limited ability to process, analyze, and report data. In addition, there is often no single, centralized data repository or owner to track access, quality, and outcomes, and no easy way to merge data with a unique identifier (ID). Those seeking to link data streams for monitoring and decision-making face challenges allocating costs and funding large data repositories. This is especially true when those data streams come from various data stewards. For example, when data from human services agencies are integrated with Medicaid data, it is difficult to determine the proportion of the cost (of obtaining, cleaning, linking, and storing the data) that each agency should

bear. States with chief data officers are making progress in these areas, but face their own challenges, in terms of clearly defining their roles and responsibilities.

Knowing when and how to scale, replicate, and adapt evidence-based policies, programs, and practices in different local contexts is a persistent need in the field. Mathematica recently developed a series of guides to help practitioners assess their readiness to scale, including the Scaling Checklist: Assessing your Level of Evidence and Readiness (SCALER) framework and tool that state and local policymakers and administrators can use to successfully scale a policy, program, or practice, focusing on the target population, implementation supports, enabling context, and implementation infrastructure.

Other examples of innovative tools developed to address these challenges include:

- The Administration for Children and Families (ACF) at the U.S. Department of Health and Human Services (HHS) has deepened a culture of, and infrastructure for, building and using evidence. In 2016, for example, ACF established a Division of Data and Improvement (DDI) that leads the operating division's work on strategic planning, performance measurement, data security and privacy, and application of data to continuous improvement. DDI's work extends to supporting states and localities as they organize their data systems and data routines in support of program improvement.
- The Centers for Medicare and Medicaid Services (CMS) has adopted several user-friendly dashboards and other tools that quickly and intuitively surface trends and insights and that can be modified to track program impacts in real-time. For example, the DQ (data quality) Atlas is a new tool for policymakers, analysts, and researchers who want to use administrative data to conduct insightful, methodologically sound analyses of Medicaid and the Children's Health Insurance Program (CHIP). *DQ Atlas* bridges the challenging divide between the development of uniform national data systems for state-run programs and rigorous, sound research.
- The Institute of Education Sciences at the U.S. Department of Education has ten Regional Educational Laboratories across the county which seeks to put research into action by working in partnership with educators and policymakers to develop and use research that improves academic outcomes for students. The Regional Educational Laboratory Mid-Atlantic Region (REL Mid-Atlantic) provides collaborative tools for educators including webinars, infographics, videos, practice guides and other resources that translate complex data and evidence into tools for broader audiences. Although the REL Mid-Atlantic is well-known in many education communities, state leaders are slower to adopt and use this resource. REL Mid-Atlantic offers a model that does not exist for other research and policy domains, such as healthcare, human services, and others.

2. What are examples of high-impact data uses for evidence-based policy making that successfully effected change, reduced costs, or improved the welfare of citizens?

Administrative data from the Centers for Medicare & Medicaid Services (CMS) and the Social Security Administration are examples of high-impact data that can reduce costs. Medicaid and CHIP data play a key role in answering policy questions that affect program enrollees, states, the federal government, providers, and others. With high quality health care administrative and claims data, it is possible to model the impacts of various health care interventions on cost and quality outcomes at

the patient level. Community Care of North Carolina, for example, uses an Impactability Score to target managed-care interventions based on the likelihood that an intervention will improve the value of care delivered. This article in *Population Health Management* provides additional insights into North Carolina's use of administrative data to predict achievable savings.

Other examples of high-impact data uses for evidence-driven policymaking include: (1) ongoing support for states and municipalities that use cloud-based wastewater data repositories to detect and monitor community use of drugs (opioids and methamphetamines) and outbreaks (COVID-19, tuberculosis, measles, and polio); (2) using agent-based models to help state and local education agencies and postsecondary institutions simulate COVID-19 infection rates under various school reopening scenarios; and (3) employing predictive risk modeling to help state child protective services systematically screen and triage hotline referrals for investigation.

3. Which frameworks, policies, practices, or methods show promise in overcoming challenges experienced by governments in their evidence building?

Initiatives like the Foundations for Evidence-Based Policymaking Act (Evidence Act), President Biden's recent executive order Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking, and even the creation of this Advisory Committee indicate that decision makers around the world are embracing policies and programs supported by data and evidence. These actions have paved the way for a broader federal data strategy, requiring federal agencies to submit plans for coordinating evidence-building activities across the government. Recent guidance from the U.S. Office of Management and Budget on evaluation practices in federal agencies have also helped guide the development of opportunities for promoting evidence to support policymaking. As agencies implement the key provisions of the Evidence Act, states are using tools, reports, dashboards, and other resources to help facilitate the use of evidence. Examples include:

- To reduce the devastating impacts of the COVID-19 pandemic, we're using agent-based modeling to run thousands of simulations of infection spread across more than 100 school situations, varying by school level, school size, operating strategy, approach to quarantines and closures, and local COVID-19 infection rate. These models simulate how various instructional approaches during the COVID-19 pandemic could affect students, teachers, and ongoing learning.
- Contact tracing has generated an unprecedented amount of data to help states better understand how the coronavirus has impacted communities. Mathematica has worked with states and localities as they refine their approaches to contact tracing for COVID-19. We worked with the National Academy for State Health Policy to create an interactive, online repository of COVID-19 contact-tracing programs in every state that captures information on hiring and training strategies, funding, and technological innovations.
- For the Medicaid and CHIP Business Information and Solutions (MACBIS) initiative, CMS is building an infrastructure for robust data analytics that integrates federal and state data sources to form decisions about Medicaid and CHIP policy and programs. This partnership has resulted in a variety of tools for advanced data quality detection and dissemination. These tools provide technical assistance to states with their Transformed Medicaid Statistical Information System file submissions and include dashboards, exploratory analytics, and custom reporting capabilities for self-service decision making.

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- The [Evidence 2 Insights (e2i) Coach](#) is a free, publicly available platform state and local governments can use to build evidence of effectiveness of their policies, programs, and practices. The e2i Coach guides individuals or teams through the step-by-step process of independently designing and conducting low-cost rapid cycle evaluations.
- Predictive Risk Modeling, for example in the child welfare area, can help caseworkers make decisions that help to allocate resources and services based on predictive risk models. Data quality tools ensure that the data being used for decision making is ready for meaningful use.
- In Oakland, California, social network analysis is being used to build an interactive dashboard that visualizes clients' [access to violence prevention programs and services](#) provided by community-based agencies. These tools are actively being used to better understand citywide variations in service delivery.

4. The Commission on Evidence-Based Policymaking recommended the creation of a National Secure Data Service. Do you agree with this recommendation and if so, what should be the essential features of a National Secure Data Service?

Mathematica enthusiastically supports the creation of a National Secure Data Service. This service would reduce redundancies in data collection, improve data standards and interoperability, and make available important data for research that can inform policy and program decisions. This system could be structured to address key data linkages and spur public and private partnerships that necessary to (1) conduct rapid research and development (R&D) of secure data access and confidential technology and methods and (2) give agencies incentive to adopt these methods by continuously and rigorously educating personnel to keep pace with R&D and manage the risks that rapid change presents.

9. What are the key problems and use cases where collaborative work between federal, state, and local authorities' data analysis can inform decisions? What are key decision support tools? How would greater communication about data and tools benefit expanded evidence building?

Mathematica has observed several instances where collaborative work between federal, state, and local authorities can inform decisions. For example, when tracking the longitudinal outcomes related to early childhood and education (ECE) experiences, there often isn't a way to tie ECE attendance to a child and follow them through elementary school. We can envision a scenario where it would be helpful to get a child's ECE history and access Quality, Rating, and Improvement System (QRIS) data about the programs that child attended when the child registers for kindergarten. But that process would require unique child IDs, program IDs, and a way to connect them all. Overall, this type of collaboration would require cultural change management that makes everyone part of a broad-based effort to rely more heavily on data and continuous quality improvement. It also requires a shared understanding of permissible interagency data sharing agreements under FERPA and HIPAA.

Furthermore, state funding for community services is declining steeply, as state tax revenues shrink because of unemployment and business closures related to COVID-19. Resources needed for essential health, mental health, and community services are being redirected to cope with infections, and, in some states, to address natural disasters related to climate change. Access to essential health

and safety net services, access to healthy food, financial stability, and stable neighborhoods are social determinants of health. The Centers for Disease Control and Prevention describes these factors as "conditions in the places where people live, learn, work, and play that affect a wide range of health risks and outcomes." When social determinants of health are disrupted, future rates of chronic illness, injury, disability, and mortality increase. One way to address this complex issue is to co-create state and federal policy simulation models that enable us to forecast and compare the potential impact of various policy strategies on future rates of disability, illness, and death. Such simulations are successfully identifying insights to help assess and manage COVID-19 impacts on communities.

Mathematica is eager to support state, federal, and local efforts to strengthen capacity for evidence-building. Programs need high-quality data to accurately forecast and manage costs, track access to services, monitor performance, and deter fraud. But many state and local agencies lack the infrastructure, processes, and human resources needed to collect, manage, and validate data effectively. They require services and supports that (1) boost investments in staff resources, (2) increase reliance on building Learning Agendas, (3) provide states with robust technical assistance, (4) establish clear lines of communications between states and the federal government.

Now is the time for us to act on the provisions called for in the Evidence Act, and we have the tools to do it. Together with my Mathematica colleagues, we thank the committee for the opportunity to share our insights as we all work to solve complex programmatic and policy challenges.

Sincerely,
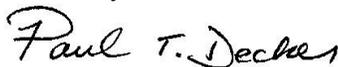
Paul T. Decker
President & Chief Executive Officer,
Mathematica

Comments submitted to
Advisory Committee on Data for Evidence Building on

Promoting the Use of Data for Evidence Building
<u>and</u> for Evidence Sharing and Evidence Use

from
Shelley H. Metzenbaum, Ph.D.

Former OMB Associate Director for Performance and Personnel Management

February 9, 2021

This comment is informed by my work on a report forthcoming from the IBM Center for the Business of Government on improving grant outcomes, operational quality, and transparency.

OVERVIEW

This section, the Overview, provides overview answers to questions 1 through 3 and questions 9 through 10. It does not respond to questions 4 through 7.   The next section, Discussion and Examples, elaborates on questions 1 through 3.

1. **What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points the face in the evidence-based decision-making process.**

Efforts by states, localities, tribes, territories, regions, and community-based non-profits to use evidence (and contribute to building it) have been greatly complicated over the years by a number of bottlenecks, pain points, misconceptions, and other problems that leave many of the lessons of experience and of well-designed trials unappreciated and unshared. These problems include:

A. Asking the wrong questions
B. Too few asking the right questions and using the full scope of evidence to inform action
C. Siloed implementation organized around function and program, not outcomes and beneficiaries
D. Insufficient attention to sharing evidence successfully with key audiences
E. Oversight infrastructure that overwhelms insight generation and insight sharing
F. Incentive systems that ignore evidence about motivational mechanisms
G. Weak systems for learning and building knowledge across programs about what works well and what works less well for building, sharing, and using evidence

These problems are explained and discussed in greater detail in the Discussion and Examples section below.

Please note that while the December 15, 2020 Federal Register notice asked about challenges facing governments trying to build a basis for evidence-based policy, I urge you to consider the evidence needs of non-profit organizations, as well. In a number of areas, such as boosting knowledge through R & D and reducing poverty and discrimination, federal policy makers have intentionally opted with sound policy reason for the federal government to work directly with non-governmental organizations rather than through other governments as intermediaries. I urge the Advisory Committee to consider how to support the evidence needs of and lessons learned from the federal government's partnership with non-profit organizations as varied as major universities and local community action programs because these NGOs are so critical to continuous learning and improvement in many policy areas.

2. **What are examples of high-impact data uses for evidence-based policy making that successfully effected change, reduced costs, or improved the welfare of citizens?**

Governments, non-profits, and the for-profit private sector have long generated, shared, and used data over the years with high impact returns as well as higher return on spending in areas as diverse as agriculture, environmental quality, health, transportation safety, and early childhood. Sadly, while these success stories have occasionally been captured in narrative form over the years, to my knowledge no one has tried to capture lessons from successful and less successful data-using, evidence producing, and evidence-sharing experience in systematic ways to make it easier to learn from experience as well as from well-designed trials across policy areas what worked well, what did not, and why. I notice that the Federal Register notice refers to Round 1. I am not sure what that means, but hope it means you intend this to be the beginning of an iterative learning and improvement effort that makes the federal government more

evidence-based in the way it builds, shares, and uses evidence in addition to informing how federal programs can help their delivery partners to build and use evidence for better outcomes, operational quality, and transparency. In other words, please make the information collection effort you have stared with this Federal Register Request for Comments the beginning of an ongoing effort to build and share evidence about more and less effective ways for the federal government to build, share, and use evidence going forward.

Let me also urge you to start to be specific about different **uses** and **users** of evidence. Doing so may relieve some of the confusion and debate currently surrounding evidence-based policy. Let me suggest that we need evidence to:

- Inform where to focus;
- Find ways to improve – search for what works, for what works better, and for situational differences that affect effectiveness; and
- Increase uptake of better practices and reduced use of less good ones.
- On occasion, inform choice among providers and products, and
- Support referrals and client and outcomes-based integration across programs, providers, and services.

Let me also suggest that the Advisory Committee call on federal agencies, especially but not only grant-giving agencies and those involved in cooperative agreements, to treat those who work on the frontline and those who support them as priority users for federal data, analyses, findings of well-designed trials, and other evidence. Doing so will require careful attention to where, when, and how evidence is communicated and to making sure it is communicated successfully to make sure that target users can easily find the evidence they need when they need it in a format they can easily access, understand, and apply appropriately. It will require building and sharing evidence about the effectiveness of evidence communication efforts and how the effectiveness of different approaches may vary for different evidence users. Many of the evidence repositories that share the findings of well-designed trials from non-medical RCTs currently communicate evidence in ways that make the findings hard to access and, once accessed, hard to interpret accurately and apply appropriately. Moreover, much of what gets reported in these evidence repositories focuses on whether or not a particular treatment or product was effective on average rather than also providing more actionable information about differential effects (for whom did a treatment work and for whom did it not) and comparative effectiveness. Progress has been made in the design of some evidence repositories in recent years, but much more is needed.

Valuable lessons can be learned about useful ways to share data, analyses, and the findings of well-designed trials from across the federal government and beyond the U.S. both about what works well and what works less well for different audiences. At the same time, well-designed trials could be undertaken to find even better ways to communicate data, analyses, and other evidence. The federal government should create and support a network of evidence repository managers to function as a continuous-learning-and-improvement community, learning across programs and collaborating to get feedback from users while also testing to find better communication methods.

I provide examples of high-impact data uses, as well as less impactful uses, in the Discussion and Examples section below, and also discuss data users in that context.

3. **Which frameworks, policies, practices, or methods show promise overcoming challenges experience by governments in their evidence-building?**

Whether talking about cleaner air and water, safer travel, healthier people, helping children thrive in life, or better agricultural practices, the most promising frameworks, policies, practices, and methods share several characteristics:

- they are clear about the outcomes they seek to improve (although outcome objectives may change over time) and find ways to measure progress, problems, and context to inform where to focus and find ways to do better;
- they communicate analyzed data and the findings of well-designed trials to current and often potential delivery partners in and outside the federal government in appropriately frequent, timely, understandable, easily accessible, and useful ways;
- they embrace routines that discuss data analyses and findings of well-designed trials with those involved in delivery to figure out what has been learned, understand risks and causal factors that need attention, and decide what to do and what to learn next.
- They also communicate to key authorizers, other interested parties, and the public in easily understood and resonant language about outcome goals and why they were chosen, strategies and why they were chosen, progress, problem, lessons learned, and planned next steps both short and long term.

Questions 4-7 regarding the National Secure Data Service. I do not feel expert enough to contribute to this important discussion except to urge you to be very clear about the risks you are trying to prevent, such as identity theft, to figure out how to prevent them.

8(a). What are the most pressing data needs of state and local decision makers and how would making data accessible from federal agencies help meet those needs?

State, local, tribal, territorial, and regional governments, as well as non-governmental organizations that are federal purpose partners through grants or cooperative agreements or other means need data to think and act more intelligently about:

- Where to focus (e.g., whom to serve, where and when to take action)
    - Detect and understand problems needing attention, their relative import, whom they affect, where and when they occur, and why they occur
    - Areas of opportunity
    - Context for action (e.g., changes in supply, demand, other changes in the world that may need attention such as the relative risk of self-driving cars)
- Ways to improve
    - Find predictive, precursor, or warning indicators of problems and progress, as well as those that can shed light on causal and other pathways that can be influenced.
    - Detect progress to be sustained and possibly replicated and/or amplified, relative import, whom affected, where and when happening, and why
    - Find positive outliers with replication-worthy practices worth testing in other places to see if they generate similarly better results
    - Detect anomalies and outliers to understand why they are happening and whether they point to problems needing attention as well as to better practices worth replicating in other places
    - Inform treatment design by better understanding characteristics of the people, places, and organizations to be affected (e.g., is a job training program for single parents new to the workforce, for long-time workers laid off because a plant shut down, or both; is a driving

safety program for new drivers or the subset of older drivers that analyses suggest have more accidents; do unwanted incidents cluster at different times of the day, week, or year; do different population groups have different attitudes toward vaccination.)

- o Figure out how products and practices currently used or being considered compare to other products and practices available to meet the same needs, resisting the temptation to favor what already dominates the market that state, local, and non-profits may feel it is safer to use because everyone is using even when it is not as good as alternatives or does not meet needs
- o Figure out for whom products and practices work well and for whom they work less well
- o Find others dealing with similar circumstances with whom to collaborate to develop tools to meet similar needs and to test and assess new practices to find better ways to do business.

- Increasing uptake of better practices and reduced use of less good ones
- On occasion, informing individual choice, such as where to rent a home to get a school that is a good fit for a child's learning needs, live near open space, or find cleaner air for an asthmatic child
- Serving people, communities, places, and economic activities in more intelligent, simple, and cost-effective ways with more useful, interactive information about eligibility requirements and service provider location and quality for referrals and collaboration (e.g., Code for America has done very interesting work on this)
- Relationships (systems, networks, vectors, causal pathways) to understand what affects what and to tap into those relationships to realize better outcomes in fair, equitable, cost-effective ways

8(b). To share data, what guarantees do data owners (or data controllers) need regarding privacy, data stewardship, and retention?

Data Sharing and Stewardship. How the federal government collects and returns data and data analyses as well as findings of well-designed trials to the field makes a big difference in how valuable shared data are likely to be and how enthusiastically data sharers are likely to engage. The federal government needs to return data it collects from the field back to the field, and especially to data suppliers, in a timely manner with value added through analyses in ways that allow states, localities, and others to learn not just from their own experience but also from the experience of others. The federal government should also return data in ways that make it easier for those on the front line to find others like them from whom they can learn and with whom they can collaborate to test and assess to find better and more cost-effective approaches to address different situations. If the federal government collects data but fails to return it to the field with value added through analyses, the field will treat data as a compliance exercise that needs to be completed without worrying about the quality of the data they submit. This tends to result in less valuable data and time wasted collecting and reporting it.

Also, if the federal government or others opt to use data as part of a reward or punishment system or use it to make unfair comparisons instead of requiring data to be collected and reported and then returning data to the field with value added through analyses, the field is likely to view data as a threat rather than a resource. When that is the case, the field tends to fight to dismantle the measurement or the incentive system (e.g., motorcycle helmet laws), advocate successfully for measurement that does not reveal much that is useful for finding ways to improve or where to focus, game the system or manipulate the measures (e.g., education metrics in Dallas and elsewhere), or treat data as a burdensome requirement that needs to get done rather than a way to build knowledge. That is not to say that the federal government should never link data to the promise of a reward or the threat of punishment. When done well, as with the National Ambient Air Quality Standards of the Clean Air Act (CAA), the linkage can be very effective. It is important to note, however, that the CAA linkage to the threat of a large punishment (loss of

transportation funding) only worked well after the U.S. Environmental Protection Agency made assumptions of the model it used to project attainment of air quality standards more transparent and revised those assumptions in close consultation with the states threatened by penalties if projected performance of their planned actions were not projected to attain CAA standards.

The federal government also needs to work with state, local, and non-profit partners to avoid using data in ways that might contribute to unfair or unconstructive bias and in ways that they collect and use biased data. Unbiased data can cause problems for the people whom government wants to benefit when it causes those using data adjust their assumptions downward about what is possible in ways that hurt the performance of the people or places being measured. One example of this has been referred to as the Pygmalion effect. Researchers have found that teacher expectations for an incoming student tend to affect how those teachers teach each student and consequently how they perform, reducing the future performance of those entering a classroom with lower past performance scores.[1]

Unbiased data can also cause problems for government because, cognitive scientists have found, people not only tend to pay more attention to the negative and sensational but also remember negative and sensational stories longer than positive ones. This bias to the negative and sensational is more of a problem for government than for publicly traded private companies because investors actively search for companies and organizational units with promising stories and high returns, which counterbalances the bias to the negative that government suffers. Those working on data stewardship need to give serious attention to finding ways to offset this negativity bias to reduce the likelihood that stories about government problems will overwhelm stories about government success, triggering a vicious cycle of distrust and unwillingness to fund government that, in turn, makes government less successful over the longer term.

Bias in data collection can also be a serious problem in fields as diverse as medicine, policing, terrorist screening, and early childhood assessments. The bias can arise because of past bias and discrimination in practice, but also from screening and testing tools that did not include a diverse subset of the population used to develop the screens or tests. Data stewardship requires serious attention to finding, being aware of, and preventing bias as well as preventing biased decisions and actions informed by biased data.

Given the risks of problems using unbiased information as well as the risks of using biased information, I urge you to recommend that all federal agencies make bias, as well as the questions of allowed and unallowed as well as encouraged and discouraged uses of collected data a topic of much deeper inquiry in the future because it is so important. I would also urge you to recommend the creation of a continuous-learning-and-improvement network across the federal government to learn from experience about what and how to share data in ways that motivate continual improvement and allow fair comparisons in ways that shed light on better practices and products but do not tempt measurement manipulation or worse and that avoid unfairness and inequity.

Successful data sharing and stewardship calls for careful attention and mutual agreement not just to privacy, but also to assuring appropriate and inappropriate uses of data as well as figuring out how to encourage some and discourage other uses.

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[1] http://adigaskell.org/2014/10/24/research-provides-more-evidence-of-the-pygmalion-effect/#:~:text=The%20scores%20from%20the%20teachers,pupils%20had%20higher%20performing%20classes.\

Privacy. Data privacy is important. Government needs to prevent the sharing of personally identifiable information used to steal another person's identity, unfairly embarrass them, or reveal personal information they do not want revealed. It also needs to prevent the release of confidential business information that creates unfair economic competition. At the same time, access to more granular data with details about the finest unit of analysis possible, whether about a person or an event or both, combined with frequent and timely data noting key characteristics about the person or event such as the operator/provider, equipment/products used, location, and time of the event or the measurement makes data far more useful for figuring out where to focus and for learning from experience what worked well and what did not to inform what to do or buy next. Progress needs to be made to de-identify personally identifiable and confidential business information while still being able to mine the masses of data government collects to learn more about, for example, whether a particular curriculum or job training program helped more people in certain categories than did other programs and which kinds of people they helped.

Retention. Data retention policies should encourage retention in ways that make it possible and easier to learn from experience, such as by comparing long and shorter-term trend data across locations together with snapshot comparisons for the most recent timeframes. This often enables not just more fair comparisons but identification of those that found ways to improve and those encountering new problems that may need help they did not previously need.

Data retention policies should also retain information about cross-agency, agency, and program goals and more specific objectives (required by the Government Performance and Results Act of 2010 and its predecessor and by program-specific enabling laws), as well as data, analyses, and other studies used in the past to inform where to focus and decide strategies and next steps. This will make it more possible to learn from experience both what worked well and what did not and decide future action. It is currently difficult if not impossible to find past federal government goals and experience that used to be visible on ExpectMore.gov and earlier iterations of Performance.gov except by getting lucky on the Wayback Machine. Snippets of the information can be found on Presidential archives, but not in a format that makes the information useful for learning from experience. In the age of big data and following the passage of the Foundations of Evidence Act, it is time to start archiving this information in more useful ways and relating it to relevant government-wide outcome objectives (perhaps starting with budget functions and sub-functions as those outcome categories but evolving from there), data bases, evidence repositories, and learning agendas.

9. What are the key problems and use cases where collaborative work between federal, state, and local authorities' data analyses can inform decisions? What are key decision support tools? How would greater communication about data and tools benefit expended evidence building?

The federal government depends on others to advance its outcome objectives for almost all domestic and many international problems and opportunities. This is true whether the objectives are to deter harmful incidents (e.g., fires, crime, accidents, deaths) or encourage beneficial ones (e.g., restoring endangered species, healthy births), improve conditions (e.g., air and water quality, ecosystem and economic system health), attain and sustain specific performance levels (e.g., drinking water and workplace standards), or realize discrete accomplishments (e.g., knowledge building through research.) In all of these situations, the way the federal government collects, shares, and uses data, data analyses, and the findings of well-designed trials can be enormously helpful to local decision-making, action, continuous learning, and continuous improvement.

At the same time, the federal government's data handling decisions can be problematic. Insufficient attention to how to collect and return information to help front line and other current and potential

purpose partners make better decisions for better results can be a problem. So can inappropriate or problematic use of collected information, such as to reward or punish or to compare unfairly. Too often, federal agencies handle the information they collect in ways that distracts attention away from improving outcomes, operational quality (e.g. service quality, cost effectiveness, risk), and transparency for multiple purposes, unfortunately focusing it instead on staying out of trouble and being in compliance. That is not to say that attention to risks is not important. Attention to actual and potential operational problems is very important, including attention to the risks of unwanted side effects such as police abuse and measurement manipulation. Risk and problem information, too, needs to be collected, analyzed, and shared with the field in ways that help them understand and manage risk wisely.

In short, the federal government takes on few "key problems" and "use cases" where a collaborative approach to states, locals, and non-profits would not lead to better results. Exceptions might be when the federal government pursues major discrete objectives such as landing on the moon or Mars and aspects of national defense. To collaborate successfully using data and well-designed trials, the federal government needs to communicate frequently with its current and potential purpose partners to sort out what and how it can help, including how it can best collect, organize, analyze, and share data, data analyses, evaluation findings, and other studies to be more useful. It also needs to communicate frequently and effectively to identify synergistic roles the federal government is better positioned to play than states, localities, and non-profits acting on their own, such as developing shared tools and knowledge.

(See the response to question 10 for an answer to your question about key decision support tools likely to be helpful.)

10. What basic public data services are essential for a data service to address existing capacity gaps and needs? What infrastructure or incentives can the federal government create that locals and states cannot?

First, public data services need to identify priority users and apply user-centered design principles (and perhaps other customer service practices) to make sure users are aware of the data service and other evidence resources that are available to them, can find and access them easily (e.g., no paywalls), can understand how to apply the research findings appropriately, and can understand how to use data system tools such as filters, report generators, and visualization generators. Purpose partners should be treated as priority users. These include those on the front line, including state, local, tribal, and non-profit grantees, but also purpose partners in other parts of the federal government and those who support the front line with training and technical assistance.

Second, the federal government should make it easy to organize and integrate data system information around outcomes, populations served, and providers. It should do this in a way that makes it easier to find others working on the same or related objectives both to learn from and to collaborate with them.

Third, the federal government can play a synergistic role in numerous ways helping their front-line purpose partners make more sense of data and research findings. These include:

- **Collecting data in ways that make it more actionable.** Federal agencies should work with states, localities, non-profits, and other current and potential purpose partners to find ways to characterize the information they collect to make it more useful for figuring out where to focus and find ways to improve. This may involve time stamping and geo-coding data when collected, but also noting operator/provider and equipment/product characteristics associated with what is counted. (The Haddon Matrix used by the National Highway Traffic Safety Administration is one example of a good way to count and characterize incidents.) Other data collection features to consider to improve data relevance and insight-generating value are the timing and temporal and

spatial frequency of data collection. Teachers lament that end-of-year test scores are of little value to the prior year teacher, while sharing those test results with next year teachers runs the risk described earlier of triggering the unfortunate Pygmalion effect. Would earlier testing be more useful for helping students improve? Monthly water quality data collected by volunteers at 37 points along the 80-mile stretch of the Charles River in Massachusetts revealed to EPA previously unknown water polluters who were illegally discharging into storm sewers that flowed directly into the river rather than flowing, at a permitted level, into the sanitary sewer system for treatment before release into receiving waters. The geographic and temporal frequency of the data made it far more actionable, suggesting where previously unknown problems were happening and also making it possible to see whether or not and how much progress was being made after actions were taken. The river went from being swimmable 19 percent of the time when measurement started in 1995 to being swimmable 51 percent of the time in 1998 after fresh, frequent water quality measurement revealed illicit hook-ups to storm sewers that were then removed. Similar attention to detailed data to distinguish freshman students on track to graduate and those at risk in need of more tailored attention may have increased graduation rates in the Chicago Public Schools significantly.[2]

- **Analyzing and visualizing data.** The federal government can offer states, locals, and non-profit purpose partners easy-to-use filters, report generators, and visualization tools to help them figure out where to focus and find ways to improve. The Data Design Initiative of the National Head Start Association is currently working with students at Carnegie Mellon University to develop a tool to make it easier for local Head Start programs to pull and analyze data from the U.S. Census for their mandated but also useful, one hopes, annual needs assessments, for example. The federal government could develop tools such as this to facilitate the sorts of analyses that will help states, locals, non-profits, and even local business networks figure out where to focus and think in more informed ways about what to do next. The federal government could also offer visualization tools such as those at demonstrated by Hans Rosling in a TED talk urging his audient to "Let my data set change your mindset,"[3] visualizing data to urge policy makers to focus in places other than where popular opinion was suggesting they should focus. Rosling's presentation also suggests ways federal agencies might make it easier to see changes over time for more than one variable and more than one location. To support states and localities in their efforts to meet a new federal requirement that federally-supported state and local educational agencies (school districts) produce report cards for parents and the public, the U.S. Education Department held listening sessions with parents and other stakeholders to gather feedback on the format and accessibility of report card information, sponsored a report card design challenge, convened state report card communities of practice (CoP), brought in subject-matter experts to help states and districts learn how to add more data to report cards and how to communicate complex data to external and internal stakeholders more successfully, and created a report card resource library that provides examples of how states are designing and communicating about their report cards. It also helped states with common, although not high volume, special communication needs, such as for Arab American, Native Hawaiian, or Pacific Islander English language learners.[4]

- **Evidence repositories organized around outcomes (problems and opportunities) and populations served.** The federal government would help state, local, non-profits, and others in and outside the federal government make more sense of research findings by organizing evidence

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[2] https://www.educationnext.org/straight-conversation-emily-krone-phillips-chicagos-freshman-ontrack/

[3] https://www.ted.com/talks/hans_rosling_let_my_dataset_change_your_mindset/transcript?language=en

[4] Education Department, "U.S. Department of Education FY 2019 Annual Performance Report and FY 2021 Annual Performance Plan," U.S. Department of Education. https://www2.ed.gov/about/reports/annual/2021plan/fy2019apr-fy2021app-report.pdf
(p.30-31)

repositories around outcomes and populations served, by reporting not just average findings but also findings about differential impacts of what was studied (e.g., for whom did something work and for whom did it not), and comparative effectiveness. It could show links to other relevant research findings, as PubMed sometimes does. It could provide information in a format that answers the kinds of questions front line workers and managers in the field as well as beneficiaries are likely to have. Understanding what those questions are would require frequent conversations with and feedback from the front line. It would also require translating research findings from peer-reviewed journals and other sources to language the lay public can understand and accurately interpret and apply, confirming that understanding with user feedback. Some of the better medical journals reportedly pay skilled writers to do that translation which, perhaps surprisingly, makes some of the medical research more understandable to potential beneficiaries than other social science findings. Finally, these evidence repositories should explore ways to integrate information from the field about postive outliers, places showing significant progress compared to peers or prior results, such as Chicago public schools, community colleges participating in networked improvement communities, and the clean-up of the Charles River in Massachusetts.

- **Learning agendas organized around outcomes and populations served.** The Foundations of Evidence Act requires agencies to provide and annually update what many colloquially refer to as a learning agenda, identifying knowledge gaps and sorting out priorities for filling them. (At least, I think and hope that is what the law requires.) Learning agendas, like evidence repositories, should be organized around outcome objectives and problems to be solved, not by agency or program. They should also be organized around beneficiaries in some way, as well. These learning agendas should be dynamic (continually updating) and inclusive (inviting everyone to identify knowledge gaps.) They should support discussion and debate about the relative import of knowledge gaps to be filled and their sequential dependencies. These outcomes-focused learning agendas should also make clear which knowledge gaps the federal government and others are already working to or have plans to fill. The hope is that this will help other interested researchers and funders consider in a more informed ways the knowledge gaps they might want to fill. Outcome-focused learning agendas should link to relevant data bases, relevant analyses, and relevant evidence and evidence repositories. They should also link to relevant federal cross-agency, agency, and program outcome goals and objectives, together with descriptions of strategies and why goals, specific objectives, and strategies were chosen, lessons learned, and planned next steps. The format used for HealthyPeople.gov 2020 includes much of this kind of information (although just national key indicators and not federal government's goals, objectives, and strategies) that suggests a useful model upon which to build especially if the platform can be used to support local discussions and brainstorming about what to do next, not just what to report next. (HealthyPeople.gov had some elements of this.) ClinicalTrials.gov may also suggests a method for reporting on current research underway as well as planned research that other programs can use.

- **Strategy maps and strategy mapping tools**. Strategy mapping can be a valuable way to sort out and communicate how all the pieces of an outcomes-improving puzzle fit together, but the effort to create a strategy map can also easily morph into a rigid compliance exercise where everyone feels compelled to fill out the blanks or do what is in the map even when the world has changed rather than using it as a tool to organize conversations about what to do next and who will do it, informed by evidence. Online mind mapping tools that support brainstorming about relationships and strategies may be a helpful way to update strategy mapping and do it in more innovative, agile ways. Federal agencies should explore the use of mind mapping, complemented by ready access to relevant analyses and research findings, to support continual brainstorming and decision making about who will do what next, informed by relevant evidence. They should explore the use of strategy mapping tools not just for national decision-making, but also to support sub-national decisions and actions to improve outcomes.

- **Collaboration and learning platforms.** Technologies that support collaboration and learning across time and location existed long before Covid-19, but the pandemic led to explosive developments in the capacity, functionality, and sophistication of these communication platforms. Federal agencies, working individually and with each other, are uniquely well positioned to further develop these communication platforms to support collaboration and continuous learning and improvement within and across communities.
- **Problem-solving (and opportunity advancing) routines.** The federal government can establish routines to support the field and its purpose partners in looking at data to find pattern similarities and differences, outliers, and anomalies to ask questions about them to figure out where to focus, find ways to improve, and increase uptake of better practices and reduced use of less good ones. It can also play a critical role finding and telling the story about what is known about problems (and opportunities), causal factors affecting them, progress, problems, and lessons learned because the federal government has size and scope that others lack. It is especially well-positioned to do this work looking at experience across the country in a way that states, localities, and non-profits cannot do and to fund well-designed trials to find ways to improve and to communicate better. When the federal government does this and does it well, supporting the field and paying attention to its needs and its understanding, it aligns incentives with continuous learning and improvement. When, instead, it sends out monitors and auditors and inspectors general that collect data but don't analyze it and share those analyses in ways that help everyone improve, it sends a strong message that compliance and problem avoidance is the order of the day. In a world where trial and error marks the path to improvement provided people at all levels of government and their purpose partners take the time to learn from both, the lack of continuous learning and improvement routines hard wires problematic incentives.

<center>**Discussion and Examples**</center>

This section elaborates on questions 1 through 3.

1. **What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points the face in the evidence-based decision-making process.**

Efforts by states, localities, tribes, territories, regions, and community-based non-profits to use evidence (and contribute to building it) have been greatly complicated over the years by a number of bottlenecks, pain points, misconceptions, and other problems that leave many of the lessons of experience and of well-designed trials unappreciated and unshared. These problems include:

A. **Asking the wrong questions.** For many years, some evidence advocates have argued that the federal government should use evidence to find and fund what works, defunding what does not. That question oversimplifies how evidence can and should be used. Funding what works and defunding what does not ignores the reality that most government grant and other programs were created to reduce problems or advance opportunities that remain important even when the practices a program is using are not working. A grant should not be defunded if an evaluation of the program as a whole finds the "program" ineffective provided the program is actively and intelligently searching for better practices to improve outcomes and is successfully promoting adoption of the better practices and discouraging use of harmful or less good practices, as well as providing information to inform debate about the relative import of the problems and opportunities the grant program is designed to address. As noted in the Overview section, federal agencies should build, share, and use evidence to inform their own and their state, local, non-profit, and other purpose partners to:

   - Inform where to focus;
   - Find ways to improve – search for what works, for what works better, and for situational differences that affect effectiveness; and
   - Increase uptake of better practices and reduced use of less good ones.
   - On occasion, inform choice among providers or products, and
   - Support referrals and client and outcomes-based integration across programs, providers, and services.

B. **Too few asking the right questions and using the full scope of evidence to inform action.** In too many federal programs, it is hard to find who is looking for and sharing information to inform where to focus, searching for positive outliers that might have replicable practices that would lead to better results in other places, running replication trials, convening conversations with the front line and others to learn from experience and well-designed trials, and communicating with those who want and need to know what has been learned both about what worked well and what did not, what might explain the differences, who will do what next, and why those next steps were chosen.

C. **Siloed implementation organized around function and program, not outcomes and beneficiaries.** Standard operating procedures such as budget processes and personnel rewards, as well as the risks associated with being perceived as operating too far outside your own lane instead of sticking to your knitting, make it hard for people in the federal government to manage to improve outcomes. This problem is exacerbated by information systems and data collection routines organized around programs rather than on outcomes and the people and places served.

Moreover, information collection protocols place more value on claiming burden reduction than on enhancing information value, treating data as the strategic value-adding asset it should be. New technologies make it more feasible than ever to organize information around outcomes and those served. It is time to update data standards, data systems, program guidance, and program practices around figuring out where to focus and finding ways to improve outcomes.

D. **Insufficient attention to sharing evidence successfully with key audiences.** Those working on the front line, whether in federal field offices or in the federal government's purpose partners such as states, localities, tribes, territories, regions, and non-profits need knowledge that helps them decide where to focus (while also informing federal focus), find ways to improve, and increase uptake of better practices and reduced use of less good ones. Communicating that knowledge requires not just finding and building it but also communicating it successfully so key audiences in the delivery chain can find and understand it and apply it appropriately. Some parts of the federal government already know how to do this well. Many others need to learn.

E. **Oversight infrastructure that overwhelms insight generation and insight sharing.** Finding the multiple organizational units in the federal government charged with oversight is not hard. They include but are not limited to GAO, Inspectors General, program monitors, and, for grant programs, the outside auditors every grant recipient getting more than $750,000 per year must bring in once a year to conduct an audit in accordance with the single uniform audit guidance. These third-party observers collect a lot of data but seldom organize and analyze them in ways that suggest where to focus and how to improve. The Federal Emergency Management Administration has made noteworthy progress tapping technology and analytics to make its risk information about grants more useful. FEMA consolidated grant oversight information that had previously been collected by more than 40 grant programs into a single audit information repository, which includes information from previous GAO and IG reports as well as from Single Audits. Before this consolidation, FEMA looked at and dealt with oversight findings in a fragmented way. The IG would look at about 25 grantees per year and FEMA staff would work through the issues identified for each grantee individually. FEMA now tries to see and manage the forest as well as the trees to reduce adverse findings and reduce the need to de-obligate or recoup funding, which it is doing successfully.[5] Its work is made much harder, though, because the Single Audits submitted to the Federal Audit Clearinghouse are submitted as images, not analyzable data. FEMA has to convert that information manually. Also, neither the GAO nor IGs seem to organize the information they collect in an analyzable way that makes it possible to see outcome or risk trends and patterns in ways that make it possible to learn across programs and time where to focus and how to improve.

    The flip side of this problem is how hard it can be to find organizational units within the federal government looking for and sharing insights about what works and what works better. Some federal agencies, such as the National Highway Traffic Safety Administration and Ag Extension, have done this well for years. Others have made progress in recent years building evidence repositories but still need to make progress integrating evidence more seamlessly into program operations and helping the field find, build, and use evidence in addition to providing discrete funding awards to those ready to replicate successful past trials or scale them up in size. Moreover, as one long-time NHTSA expert reported to me, "Relatively little of our time is now devoted to consideration of what issues need attention and more to staying out of trouble…. The bureaucratic burdens of spending the grant money are about risk aversion. There has been a

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[5] NAPA/Grant Thornton Grant Symposium meeting (https://www.napawash.org/uploads/FEMA_COD_Handout.pdf).

layering on of risk averse processes, procedures, checks, double checks so the money is spent on what we could easily do versus what needs to be done…. The Paperwork Reduction Act has been used as a tool to filter and enact administration policy…. OMB may cite methodology problems or research questions, but the way it feels is that they are trying to exert political influence if research is not going in the direction they like. This has been an increasing trend for several administrations… In my time at NHTSA, 20-30 people out of 50-60 on a team had Ph.D.'s. These people have been turned into contract administrators. They spend all of their time pursuing process layers of risk aversion. They got a Ph.D. in psychology and now spend all their time filling out forms. Risk aversion is not efficient. It feels like we are going in circles. We'll ask, 'Didn't I just fill out that form?' We get told, no, it's different. But there is 80 percent overlap. The origin of these forms is not NHTSA, but the contract office. They don't know why they have these forms and their bosses don't know. They are caught in a tangled web of risk aversion. It is not a rewarding environment for a scientist."

F. **Incentive systems that ignore evidence about motivational mechanisms.** Many and possibly most people working on public policy problems in state, local, and other governments and in non-profits are motivated more by mission than money. Yet, too often, we link data to incentives for motivational purposes in ways that end up backfiring rather than in ways that use evidence about what actually motivates people. That evidence finds that doing well and getting specific useful feedback is motivating. It finds that setting a few stretch targets focuses, inspires, encourages persistence, and stimulates discovery if stretch targets are not too numerous nor overly ambitious relative to resources and skills and everyone appreciates that only a small number of stretch targets will actually be met (and if they were, they were not sufficiently stretch) but most stretch targets will lead to noteworthy performance gains.

G. **Weak systems for learning and building knowledge across programs about what works well and what works less well for building, sharing, and using evidence.** With a few noteworthy exceptions such as perhaps research and development and the Federal Demonstration Project, the federal government lacks strong mechanisms for collaborating and learning across policy areas and programs. For example, many federal programs try to prevent bad things from happening and keep their consequences as low as possible when they do. In other words, their mission is real-world and not just operational risk management. Other programs process benefits, process loans and regulate, some directly and some through other levels of government. Programs with similar types of goals and processes can (and have in the past) learned a lot from each other and collaborated for improvement. The Clinton Administration encouraged this kind of work through the National Performance Review, where communities of practice formed around different program types. The Bush Administration facilitated cross-program learning by categorizing program type for every program reviewed using the Program Assessment Rating Tool (PART). While PART and the website used to report PART scores had other problems including insufficient attention to outcomes progress and lessons learned instead of two program use of prescribed practices, its "program type" categorization was a step in the right direction. Technology advances that have driven down the cost of collecting, integrating, and analyzing data and driven up the ease of doing those things argue for coding far more of the data federal agencies collect in ways that not only identify outcomes to support collaboration to improve them but also to note goal type to facilitate learning and collaboration across programs with similar goal types about effective measurement methods and change mechanisms.

2. **What are examples of high-impact data uses for evidence-based policy making that successfully effected change, reduced costs, or improved the welfare of citizens?**

High-impact data uses include cleaner air, safer travel, healthier people, and better agricultural practices. More examples are provided below in the discussion of question 3 about frameworks, policies, and practices.

Let me also urge you to look for, document, and learn from low-impact data uses – examples where data have been collected but in a way that made the data hard to analyze to figure out where to focus and find ways to improve, including lower cost ways to achieve the same or better results. The Safe Drinking Water Act and the way it collects, analyzes, and shares analyses of Citizen Confidence Reports is arguably one example of low-impact data uses that perhaps partially explains government's long delay responding to Flint, Michigan's unsafe switch to unsafe water. Data submitted for review under the National Environmental Protection Act may be another example. What happens to all that information? Does it go into an analyzable data base somewhere or just stay in PDF or hard copy reports on some shelf or perhaps get tossed? The Federal Audit Clearinghouse is another example, one that FEMA is happily suggesting how to turn into high-impact data. Education data may be another example of low-impact data uses:

> The U.S. Education Department (ED) has supported numerous efforts over the years to look for positive outliers. Unfortunately, it is hard to find information about how ED is using those analyses to find ways to improve, test replicability of the most promising practices, explore applicability to different situations, and increase adoption of better practices. It is far easier to find information about how ED identified and punished low performers that did not make Adequate Yearly Progress. Published remarks by the head of the Institute for Education Sciences suggest that ED tried to replicate the success of the University of Chicago Consortium on School Research,[6] a pre-cursor researcher-practitioner partnership believed to have contributed to the higher learning growth rate of the Chicago Public Schools that Stanford's Education Opportunity Project found. Learning about those replication efforts and what was learned from them is not, however, easy. The IES Leader's published remarks link to information about the Chicago Consortium but not to information about failed replication efforts from which others could learn.

> Consider, too, that ED has published The Nation's Report Card annually since 1990. According to one analysis, the most recent report suggests some, albeit not significant, progress in most but not all educational areas since the Report Card started with declining progress in most areas since 2017 and little improvement since 2009.[7] Mississippi was the only state in the nation to show significant increases in three of the four core subjects measured in 2019, an improvement trajectory it has apparently been on since 2005.[8] Washington, D.C. was the only jurisdiction to show gains in three of four subjects. At the same, time, national scores for most subjects dropped or remained flat from 2017 to 2019. What is unclear to this reader (and my guess is for many of those working on the front line who would like to know this information but don't have time to search for it) is what these communities did to make a difference. ED has made clear through its tiered evidence grant-funding initiative, as well as its earlier financial support for Education Trust's Dispelling the Myth project and its more recent financial support for the Stanford

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[6] https://ies.ed.gov/director/remarks/2-4-2020.asp
[7] Nation's Report Card. "Data Tools: State Profiles." 2020.
https://www.nationsreportcard.gov/profiles/stateprofile?chort=3&sub=MAT&sj=AL&sfj=NP&st=MN&year=2013R3 Accessed August 2020. See, also, Barshay, Jill. 2019. "U.S. education achievement slides backwards; Substantial decrease in reading scores among the nation's eighth graders." *The Hechinger Report*, October 30, 2019. https://hechingerreport.org/u-s-education-achievement-slides-backwards/
[8] https://hechingerreport.org/opinion-four-ways-that-mississippi-is-teaching-more-children-to-read-well/

Education Opportunity Project, that it is eager to support others to search for effective practices, test replicability, and roll out the most promising. What is harder to find, if it exists somewhere, is a coherent and continually updated story that helps purpose partners see how all the pieces fit together – what ED has learned, what is currently being tried, and thoughts about future plans to try and to learn – so purpose partners can figure out how best to contribute. Some but not all of this story is in ED's strategic and annual plans and its annual performance reports, and perhaps in its What Works Clearinghouse. It is not, however, communicated in an easily understood way to give purpose partners a coherent and up-to-date sense of how all the pieces fit together. It would be nice to see it more coherently laid out in ED's strategic and annual plans, its performance report, its learning agenda, and in ways that current and potential purpose partners know about and find useful.

3. **Which frameworks, policies, practices, or methods show promise overcoming challenges experience by governments in their evidence-building?**

As noted above, the most promising frameworks, policies, practices, and methods share several characteristics. They:

- are clear about the outcomes they seek to improve (although outcome objectives may change over time) and find ways to measure progress, problems, and context to inform where to focus and find ways to do better;
- communicate analyzed data and the findings of well-designed trials to current and often potential delivery partners in and outside the federal government in appropriately frequent, timely, understandable, easily accessible, and useful ways;
- embrace routines that discuss data analyses and findings of well-designed trials with those involved in delivery to figure out what has been learned, understand risks and causal factors that need attention, and decide what to do and what to learn next.
- communicate to key authorizers, other interested parties, and the public in easily understood and resonant language about outcome goals and why they were chosen, strategies and why they were chosen, progress, problem, lessons learned, and planned next steps both short and long term.

Here are some examples:

National Highway Traffic Safety Administration. The National Highway Traffic Safety Administration uses the Haddon matrix (named after the first director of the federal highway safety office who helped craft the law as a Congressional staffer) to measure traffic fatalities. All states measure and submit information to NHTSA for every traffic fatality about operator, equipment, physical characteristics, and the socio/economic characteristics before, during, and after each fatal accident. Some states also use the Haddon matrix to capture information about non-fatal accidents, which they share with the federal government. Haddon's measurement approach was informed by prior academic work on the epidemiology of accidents.[9] Because it is so useful, this measurement method, still in use today, has informed the development of goals and measurement for other kinds of transportation accidents[10] as well as for harmful incident measurement in other fields.

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[9] https://academic.oup.com/epirev/article/25/1/60/718691. Carol W. Runyan, Introduction: Back to the Future—Revisiting Haddon's Conceptualization of Injury Epidemiology and Prevention, *Epidemiologic Reviews*, Volume 25, Issue 1, 1 August 2003, Pages 60–64, https://doi.org/10.1093/epirev/mxg005
[10] Other federal transportation agencies use it, as well. See, for example, https://safety.fhwa.dot.gov/hsip/resources/fhwasa09029/app_c.cfm

NHTSA has worked closely with states and localities over the years to find bright spots and test bright spot replicability. Years ago the state of North Carolina brought to NHTSA's attention an effort to increase safety-belt use started in Canada. With assistance from the NHTSA Regional Administrator, North Carolina tried replicating the practice with good results. South Carolina lacked the primary enforcement legal authority both Canada and North Carolina had allowing police to stop and check for safety belt use, so worked with the NHTSA Regional Administrator to test and measure an adapted version of what North Carolina did. Reduced fatalities resulted, although not as much as in North Carolina.[11] Based on this experience, NHTSA rolled out a very successful national Click It or Ticket campaign to increase safety belt use in cars nationwide, pairing social marketing materials it provided to states, school officials, and others, allowing states and localities to adapt the material to local circumstances as appropriate. It also encouraged but did not mandate states to adopt primary enforcement laws. NHTSA built on this successful practice and applied it to its efforts to reduce distracted driving, testing a "Phone In One Hand, Ticket in the Other," campaign in two smaller communities and after seeing outcome progress in those communities compared to other communities with similar characteristics, testing it in 4 larger communities. Over time, NHTSA has seen noteworthy progress on safety belt use,[12] but growing problems with distracted driving.[13] It has since tested several other campaigns to reduce distracted driving, including "One Text or Call Could Wreck It All," and "U Drive, U Text, U Pay."

Community Colleges and Networked Improvement Communities

The Carnegie Math Pathways NIC is a networked improvement community (NIC) dedicated to:

> improving community college student success rates in developmental math courses by combining research-based knowledge, feedback from extensive conversations with key stakeholders, and the NIC's own on-the-ground investigations of the experiences of actual community college students. The NIC developed a theory of improvement that included high-leverage drivers such as addressing language and literacy barriers and embedding supports for core math skill development within the curriculum to increase the proportion of students achieving college math credit in one year of continuous enrollment from 5% to 50%.[14] As of September 2020, more than 40,000 students across 21 state had gone on to complete their introductory college math requirements at triple the rate of their peers, and transferred to and graduated from four-year colleges at significantly higher rates than their peers.[15]

According to one of the experts who launched this effort:

> Key to reducing disparities in educational outcomes is a shift, a shift from a program focus (we need to add something new, some new idea or service) to a problem-solving focus (we target a specific disparity in outcomes and we keep iterating through improvement research cycles until we achieve our aim).

> Now, being user-centered plays a critical role here. In retrospect, perhaps we could have found a better term for this second aspect of the first improvement principle. Our design school colleagues might prefer, for example, "human centered." Regardless of term, the key idea remains: as you focus in on trying to address an educational inequity, bring the voices of the

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[11] Metzenbaum, "Strategies for Using State Information," p. 32-33.
[12] https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812875
[13] https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812665
[14] https://www.carnegiefoundation.org/blog/five-essential-building-blocks-for-a-successful-networked-improvement-community/
[15] https://carnegiemathpathways.org/. Accessed September 17, 2020

people who are most directly impacted into the conversation. Seek to understand the dynamics of this disparity through the eyes, mindsets, and emotions of all involved."[16]

New York City Building Inspections

Big data correlations combined with predictive modeling and continuing user feedback from the front-line helped design a measured trial for risk-based building inspections. A New York City data analytics team pulled together and analyzed data from 20 city data bases informed by frequent conversations with front-line building inspectors to identify warning signs correlated with unsafe buildings. Using that analysis, they proposed new priorities for scheduling building inspections which the building inspectors then tried. This resulted in inspectors finding conditions serious enough to warrant a vacate orders for 70 percent of inspected buildings compared to 13 percent when the prior scheduling method was used[17]

Recovery Act Implementation Office

Implementation of the American Recovery and Reinvestment Act of 2009 showed how successful transparency requires identifying the people who need to be informed and involved in using information (both grantees and those they affect), aligning incentives to encourage their involvement, and supporting continuous learning and improvement communities (catalyzing their creation, where necessary.)

The experience of the Recovery Implementation Office (RIO) suggests the kind of mindset change grant programs, OMB, and oversight operations need to adopt to guide progress on a grant program's outcome objectives while also wisely managing risks. The RIO employed a **facilitative approach**, while also leveraging the authority of the Vice President to facilitate the participation of stakeholders. The office functioned as a **convener** and **problem-solver** that **engaged** with a wide range of federal, state and local partners. This approach was embodied in the objectives identified by the Vice President when the office was established. These objectives included the expectation that office staff respond to requests and questions within 24 hours, cut across bureaucratic silos by reaching out to a variety of partners, and always be accessible. Toward this end, the office adopted the role of an "**outcome broker**," working closely with partners across organizational silos at all levels of government in order to foster implementation of the Recovery Act and achieve results. Another role of the Recovery Implementation Office was to closely monitor Recovery Act spending. One way it did so was to monitor grants to ensure that they were consistent with the objectives identified by the Vice President. A second way the office monitored spending was to review weekly financial reports on agency obligations and expenditures for programs receiving Recovery Act funds and to meet with the agencies on a regular basis.

OMB sought to facilitate effective implementation of the Recovery Act by working to establish and **strengthen relationships** with state and local governments **that would ultimately implement the programs on the ground**. This was done in two ways: (1) by **soliciting feedback** from state and local partners when formulating and revising rules and policies governing the implementation of Recovery Act programs and (2) by developing its **capacity to respond to questions** from the many states and localities that would be implementing those rules

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[16] https://www.carnegiefoundation.org/wp-content/uploads/2017/04/Carnegie_Bryk_Summit_2017_Keynote.pdf, pp. 5-6.
[17] https://slate.com/technology/2013/03/big-data-excerpt-how-mike-flowers-revolutionized-new-yorks-building-inspections.html.
Excerpt from *Viktor Mayer-Schönberger and Kenneth Cukier's* Big Data: A Revolution That Will Transform How We Live, Work, and Think, (Houghton Mifflin Harcourt: 2013.)
(https://www.google.com/books/edition/Big_Data/HpHcGAkFEjkC?hl=en&gbpv=1&printsec=frontcover

and policies. A senior OMB official directly involved in this work told us the office had to move out of its traditional role as mainly a policy-making organization to adopt a **more interactive** and **service-oriented** approach. Under this approach, key activities involved engaging with and obtaining feedback from states and localities as well as providing technical support to these groups so that they could meet the Recovery Act's numerous reporting requirements. For example, to obtain feedback from state and local partners when developing key Recovery Act policies, OMB became actively involved in weekly conference calls that included a diverse group of federal, state, and local organizations. Starting in the spring of 2009, regular participants in these calls included OMB; GAO; the National Association of State Auditors, Comptrollers and Treasurers; the National Governors' Association; the National Association of State Budget Officers; the Recovery Board; the National Association of Counties; the National Association of State Chief Information Officers; and the National Association of State Purchasing Officers. These weekly calls were scheduled after several of these organizations wrote to OMB and GAO to express their strong interest in coordinating on reporting and compliance aspects of the Recovery Act. An important outcome of this regular information exchange was to make OMB aware of the need to clarify certain reporting requirements…. The local partners participating in these calls were able to corroborate what we reported and provide OMB with specific information about what additional guidance was needed. To obtain information to further guide refinements to the Recovery implementation process, at the end of 2009, OMB officials said they (1) interviewed and surveyed numerous stakeholders including governors and state and local recipients, and (2) worked with GAO to identify best practices. Based on these efforts, OMB subsequently revised its guidance, which focused on lessons learned around enhancing recipient reporting and compliance.

To improve technical support provided to state and local governments implementing the Recovery Act, OMB worked with the [oversight] Recovery Board to establish an **assistance center** based on an "**incident command**" model. One OMB official likened this approach to an extension of a traditional response model used during natural disasters, where the country's economic condition during the Great Recession was the "incident" and the Recovery Act was the intervention to be rolled out through many partners. To help implement this approach, OMB worked with officials from the Department of Agriculture who offered the services of one of their national emergency management teams to help set up and coordinate this effort. Given the large number of state and local governments that needed to be supported, OMB requested that each agency with grant programs receiving Recovery Act funds contribute personnel to support the center. According to OMB officials, from September to mid-December of 2009, the center responded to approximately 35,000 questions from states and localities.18 *(Bold, underlining, and words in brackets added.)*

Effective communication to improve outcomes and operational quality needs to be frequent. It needs to be back-and-forth and inclusive – providing fast feedback while also informing longer-term strategic thinking. It needs to support brainstorming across grantees, continuous learning from analyzed data and tested theories of change, and appropriate application of knowledge from the field and the lab. The Recovery Act was exceptional in some ways because of the Vice President's leadership role. In truth, though, every federal program needs a leader, appointed or career, to lead program implementation to improve outcomes working on their own and with their purpose partners across the federal government.

These are not the only examples of frameworks, policies, practices, or methods that have shown promise overcoming challenges experience by governments in their evidence-building. HHS's HealthyPeople.gov

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18 https://www.gao.gov/assets/670/660353.pdf . See, also,
https://obamawhitehouse.archives.gov/sites/default/files/new_way_of_doing_business.pdf

(2020), Partnership for Patients, and Winnable Battle campaigns are all promising, for example, and there is much to be learned from the experience of the USDA and the Veterans Benefits Administration's use of data and well-designed trials.

The Government Performance and Results Act Modernization Act of 2010 essentially established and mandated the framework suggested here. Unlike its predecessor 1993 law, it established routines for priority setting within and across agencies and mandated more frequent discussion and communication of performance information pertaining to those priorities to figure out where to focus and, based on the evidence, decide what to do next. As one recent study by a former skeptic concluded:

> Such routines made federal managers talk to each other about performance. In previous work, we also found that GPRAMA prodded managers pay more attention to program evaluations, an important concern given the implementation of the Evidence Act.[19]

At the same time, many still complain the GPRMA implementation is a compliance exercise. More work needs to be done to understand when it works well, when it does not, why, and how to make this frameworks work better.

Another recent study found real promise coupling experimental evaluation methods with principles of design-based implementation research (DBIR), improvement science (IS), and rapid-cycle evaluation (RCE) methods to provide relatively quick, low-cost, credible assessments of strategies designed to improve programs, policies, or practices.[20]

The challenge is to implement these frameworks in a way that accentuates the positive, as the Johnny Mercer song says, while addressing the negative. Technology advances not only make it easier to collect, analyze, and communicate data, data analyses, and the results of well-designed trials but also make it easier to support continuous learning and improvement communities with routines to ask the right questions and figure out who will do what next based on what was learned in the past. My thanks to the Advisory Committee for asking these important questions. Don't hesitate to contact me if you want me to elaborate on any of these thoughts and examples or point you to sources or if you have questions about confusing aspects of what is written here.

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[19] https://www.govexec.com/management/2021/02/ten-years-how-has-federal-performance-system-performed/171781/
[20] https://journals.sagepub.com/doi/10.1177/0193841X20923199

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February 8, 2021

Office of the Under Secretary for Economic Affairs
Department of Commerce
1401 Constitution Ave NW
Washington, DC 20230
Sent via email: Evidence@bea.gov

To whom it may concern:

On behalf of the Population Association of America (PAA) and Association of Population Centers (APC), we are pleased to submit the following comments in response to Federal Register notice "Request for Comments for the Advisory Committee on Data for Evidence Building" (86 FR 5131).

PAA and APC are two affiliated organizations that together represent over 3,000 social and behavioral scientists, including demographers, sociologists, and economists who conduct research on the causes and consequences of population change. Our members, working in applied and academic sectors, conduct policy relevant research on a wide range of topics, such as mortality, fertility, adolescent health, population forecasting, immigration, and labor force dynamics. Recommendations issued by the Advisory Committee on Data for Evidence Building could potentially improve the ability of population scientists to access essential federal data and facilitate the translation of their research for use by policymakers. Therefore, we are pleased to respond to this opportunity to guide the advisory committee's work.

The notice asks respondents to address a series of questions. Questions regarding the creation of a National Secure Data Service (NSDS) and data confidentiality and accessibility are most pertinent to our organizations' interests. Population scientists have unique expertise in issues regarding data confidentiality and accessibility and appreciate the challenges that the advisory committee faces striking an appropriate balance.

With respect to the NSDS, we wish to reiterate our support for its creation. However, we wish to make three recommendations concerning its operating principles. First, we feel strongly that NSDS success hinges on the participation of all federal agencies, including those, such as the National Center for Health Statistics, that have resisted efforts to participate fully in, for example, the Federal Statistical Research Data Centers (FSRDCs) in ways that would increase the discoverability and accessibility of NCHS data. PAA and APC encourage the advisory committee to explore the barriers that prevent all federal statistical agencies from fully participating in existing data enclaves to ensure the success of the NSDS.

Second, we think that is important and that every effort is made to ensure that the principles of reproducibility and assessment of the robustness of evidence are imbedded in the operational structure of the NSDS and the research it supports. The ability to perform such analyses is essential to determine if scientific and policy conclusions derived from these data are valid. To support this function, we urge the advisory committee to recommend that all data constructed by the NSDS be archived and made available to qualified researchers within the FSRDCs for the purposes of replication analyses.

Third, ensuring data confidentiality is also essential to the integrity of the NSDS. To this end, PAA and APC endorse the use and continuous improvement of firewalls that limit federal agencies from sharing data except for valid statistical purposes.

Thank you for considering our views. We hope the advisory committee will rely on experts within the population research community to inform its important work and recommendations.

Sincerely,
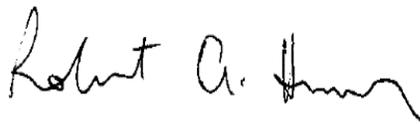
Dr. Robert A. Hummer
President
Population Association of America

Dr. Sara R. Curran
President
Association of Population Centers

Comments for the Advisory Committee on Data for Evidence Building

February 9, 2021

At Project Evident, we believe the practice of evaluation is overdue for transformation. More and more, data and evidence are being used to inform funding decisions. But policymakers, evaluators, and practitioners often have different goals, and the dominant approach to evaluation is not always actionable: it remains slow, expensive, insufficient for decision making, and sporadic. As a result, the availability and usefulness of impact data and evidence varies greatly. Project Evident was launched in 2017 out of a commitment to the building and use of evidence and a deep dissatisfaction with the lack of improvement in community outcomes. We support practitioners in taking leadership for their evidence building, and we help funders to support them in implementing evidence-building programs that focus on continuous learning and improvement.

The COVID-19 pandemic and the Black Lives Matter movement have put a stark spotlight on the racial and economic inequities that stem from policies and practices in health, housing, education, employment, criminal justice, and other domains. There is immense urgency for systemic reforms and effective solutions that deliver equitable outcomes for communities of color and low-income communities. Federal, state, and local government agencies, along with organizations that serve our communities, need high-quality data and evidence to address these pressing challenges, and to identify cost-effective solutions that reduce persistence disparities in outcomes that are too often based on race, income, and geography.

Despite progress made under both the Bush and Obama administrations to promote the use of evidence, practitioners, communities, funders, and policymakers are not systematically generating and using the evidence necessary to better serve disadvantaged communities. We see several pain points that are preventing the more widespread adoption of evidence-based practice, as well as opportunities for the Advisory Committee and the Biden administration – along with practitioners, funders, and researchers – to advance a stronger evidence ecosystem through supporting Strategic Evidence Planning for federal agencies, broadening definitions of evidence, and increasing investments in our evidence infrastructure. We applaud the work the

Advisory Committee is undertaking and appreciate the opportunity to provide input. Our comment addresses questions 1 and 3.

Support Effective Policymaking Through Strategic Evidence Planning

Among the challenges that federal, state, and local governments face in using data and evidence to inform policy is the general absence of a roadmap to guide this work. The Evidence Act addresses this challenge in part by requiring many agencies to develop research and learning agendas. We support this requirement, and suggest implementing a more robust vision of this work in the form of Strategic Evidence Plans, which provide a roadmap for continuous evidence building and program improvement, and allow agencies to strengthen their culture of learning and innovation, optimize programs and practices, and scale proven solutions.

Just as a strategic plan ensures that an organization's decision-making is intentional and is in service of measurable goals, a Strategic Evidence Plan (SEP) ensures that an organization's efforts to use data for evaluating and improving its work are planful and can advance its vision for impact. The SEP is a roadmap that helps programs and organizations:

- Articulate a vision for how evidence can advance strategic priorities within a specific timeline, and identify concrete goals to help achieve that vision;
- Develop a learning agenda that prioritizes critical gaps in knowledge and evidence in support of the vision and goals;
- Identify investments and actions needed to achieve the vision and goals, based on assessments of operating context and institutional capacity (including tools, data, technology and talent); and
- Outline a sequence of actionable steps to implement the investments and actions.

Project Evident pioneered the SEP process with nonprofit social sector organizations with the recognition that the field needed a new, strategic approach to continuous evidence building that goes beyond the one-study-at-a-time approach, and that advances actionable, practical knowledge needed to build and scale solutions. SEPs are also designed to leverage and prioritize the voices of practitioners and public administrators who are closest to the implementation of programs and policies in the communities, making the process of building evidence more equitable than it traditionally has been.

We've since worked with many different types of public and private organizations, including government agencies at the state and local level (like local education authorities), to develop SEPs that have empowered practitioners, policymakers and administrators to accelerate investments in R&D infrastructure and practices, and build the evidence that they need to

improve outcomes for their communities. We've learned that SEPs can be customized to benefit organizations of different sizes and types, as they are grounded in each agency's vision for impact, evidence goals, and operational reality.

The final report from the bipartisan Commission on Evidence-Based Policymaking found that federal departments "frequently do not have an integrated approach or a long-range plan for evidence building" and that OMB's existing infrastructure and organizational capacity "does not optimize the agency's ability to coordinate evidence building across the federal government." The Commission recognized the importance of improving the institutional capacity and culture of federal agencies to use data and evidence in policymaking, and emphasized that agencies "must be empowered and organized to work together and accomplish shared goals." In response to the Commission's findings, the 2019 Evidence Act mandates that every agency develop a multi-year learning agenda that outlines evidence priorities, and an annual evaluation plan describing significant evaluation undertakings. The legislation also asks agencies to conduct "capacity assessments for research for statistics, evaluation, research and analysis" as a part of their strategic planning process every four years.

All of these pieces — learning agendas, capacity assessments and evaluation plans — are integral components of the SEP process. The key differences are that they are connected to a concrete vision for impact and time-bound evidence goals, and are developed as part of a seamless progression to ensure coherent implementation. For example, we work to ensure that learning agendas for our partners are closely aligned with their goals for evidence building. Our "context and capacity review" process takes a holistic approach to assessing an organization's ability to execute on their evidence goals, including staffing, technology, partnerships, and culture of data use and learning — leading to a clear roadmap that outlines the investments and activities for capacity building and continuous evidence generation. As such, SEPs can be a vital tool to support evidence-based policymaking across government agencies. At the same time, as discussed below and on Project Evident's blog, we also encourage federal agencies to provide resources to government agencies and service providers at the state and local level to develop their own SEPs.

Broaden Definitions of Evidence

To build an evidence ecosystem that is more timely and cost-effective, we need to broaden how we define evidence. We have relied too heavily on frameworks and definitions that are overly narrow and don't promote continuous evidence building, but rather contribute to a "thumbs up or thumbs down" or "one and done" mentality. We have falsely equated rigor with RCTs alone, and

paid too little attention to the equally important evidence building at the earlier stages. And we generate evidence that is not always relevant, timely, or financially viable.

For instance, the tiered evidence framework in the Every Student Succeeds Act (ESSA) creates a number of issues for districts, schools, and education nonprofits, including prioritizing methods like RCTs over other approaches including descriptive statistics; an overemphasis on statistical significance; and inadequate consideration of cost. Because the use of descriptive statistics is not included in ESSA's four evidentiary tiers, this practical approach is not incentivized and, as a result, is more likely to be overlooked as a strategy to improve school outcomes.

Another issue is that we risk overlooking valuable learnings when we discount evidence that doesn't meet certain criteria, as happened with a large national nonprofit that underwent a rigorous multi-study evaluation in 2006. During that time, the What Works Clearinghouse changed its evidence standards with regard to effect size. As a result, the entire $5m, 5-year study was largely discounted by key stakeholders and key information was generally overlooked – including a small scale RCT that showed that the studied approach improved graduation rates for Black male students in Texas. Without addressing the merits and/or drawbacks of the change in effect size, we would encourage adoption of a more inclusive framework for interpreting results, using less of a binary (thumbs up thumbs down) approach where a program either works or it doesn't. In this case, there was useful learning to be gained from the rigorous evaluation even though it had low effect sizes, especially since we lack enough programs that meet the highest standards.

We should instead take a broader approach to evidence building, aimed at addressing priorities and in a way that is more actionable – leveraging readily accessible forms of data and factoring in considerations of implementation context, data quality, and systemic drivers of inequities. For instance, after closing more than 20 schools, an urban school district revised its processes using available enrollment, utilization, budget, and school selection data. As a result of these evidence-informed improvements, more than 8,000 students were placed in better performing schools. This timely, low-cost approach to improving outcomes would not typically "count" as evidence within traditional frameworks, researchers or funders, but should be supported nonetheless.

A more balanced ratio of summative evaluations to practitioner-led strategic evidence building can help spur innovation and real-time evidence that is urgently needed as organizations figure out how best to serve the needs of their communities during and after the pandemic. At Project Evident, we recently experienced a recent bright spot with a funder that was pushing for an RCT of its program in hopes of securing the strongest assessment of impact, despite the fact that conditions on the ground could not support one – leaving the future of a highly promising

program uncertain. After significant analysis, we were able to work with the funder to pursue a staged approach to developing evidence that can help them optimize their model for impact and sustainability, and that takes into account community context, partnerships, and cost. Without this work, the program would not have had the opportunity to improve services for resource-constrained communities.

Increase Investments in R&D Infrastructure and Practices

A major barrier to evidence-based policymaking at scale is that the demand for effective social programs aimed at addressing persistent and pressing problems far outweighs the supply. The capacity for evidence building in the social and education sectors is highly varied, ranging from mainly rudimentary infrastructure for data collection and analysis and limited dollars for talent acquisition and development in the nonprofit sector, to a robust technical data collection apparatus among public education agencies. Yet government and philanthropic funders rarely help nonprofit and public practitioners build core capacity for data collection, evidence building, and evidence-informed continuous improvement. Data collection and reporting requirements are often centered around compliance, and do not incentivize R&D or learning.

In order to spur innovation and continuous improvement in the social and education sectors, a disciplined process for learning, testing, and improving – an 'R&D approach' – must become standard and supported practice. In 2019 five major foundations (the Ford, Hewlett, MacArthur, Open Society and Packard foundations) [announced](#) that they were shifting their funding strategies to support nonprofit administrative costs essential to achieving impact, including information technology, strategic planning, and knowledge management, and embarking on a campaign to encourage other funders to do the same. We applaud this movement and encourage similar trends in government funding policies to better support and promote practitioners' learning, implementation, and organizational development. For instance, building on the Evidence Act, OMB should broaden the list of evidence-building activities allowable under federal grants, as Project Evident and a coalition of nonprofit and government leaders have [recommended](#).

In addition to increasing the amount of funding for evidence capacity, we need to shift the predominant focus of evaluation from accountability to learning – a sentiment we hear from both practitioners and researchers. This means balancing existing support for compliance studies and point-in-time impact evaluation with increased investment in building practitioner's capacity to generate and use evidence for learning and improvement. We should also incentivize evaluators, researchers, and other impact intermediaries to partner with practitioners to figure out what they need to know in order to better understand who they are serving, how well they are

serving them, and what impact they are having. And in order to truly improve, we need to make room for risk, failure, and adjustment.

Agencies should also invest in their own capacity to learn, test, and improve. We recognize that not all actions can be traditionally tested, but encourage testing where feasible. We like the approach laid out in the most recent U.S. Securities and Exchange Commission [Annual Report,](#) in the chapter on POSITIER (beginning on page 51), the SEC's investor testing initiative which offers steps and principles for evidence-based policymakers. Brian Scholl, Principal Economic Advisor and Chief Architect of POSITIER, stresses the importance of becoming a learning organization, which requires regular evaluation and assessment, as well the acceptance of unfavorable results. We would also point out that strong leadership is key to building the type of collaborative work environment that welcomes intellectual diversity and challenging assumptions, and allows for going back to the drawing board when necessary. And funding is needed to train agency leadership to better use and learn from data.

As we have seen in our experiences working with hundreds of nonprofits and agencies, becoming a data-driven organization is not easy. A recent [article](#) from Harvard Business Review notes that while private sector companies have made progress with appointing chief data officers, they still struggle to create strong data cultures, and report year after year that "cultural challenges — not technological ones — represent the biggest impediment around data initiatives." We understand that agencies face the same challenges, and above all, we want to avoid compliance with the letter versus the spirit of the Evidence Act. As Katharine Abraham noted recently during a webinar marking the Evidence Act's 2-year anniversary, "The success of the Evidence Act requires not just written rules in place, but having leaders that truly believe in it." To that end, adopting the use of strategic evidence plans can help make requirements such as learning agendas and capacity assessments more meaningful for agencies. Broadening how we define evidence can make data-driven practice more widespread and accessible, rather than something thought of as only relevant to large, sophisticated organizations. And increasing investment in both human and technical R&D infrastructure and practices will enable government and social sector leaders to drive their own agencies and organizations in learning, testing, and improving their impact.

January 20, 2021

Advisory Committee on Data for Evidence Building
4600 Silver Hill Road
Washington, DC 20233

Re: Response to General Questions 1, 2, 3, 4, 8, 9 and 10 for the Advisory Committee on
        Data for Evidence-Building (Dockment # 2020-27489)

Dear Committee Members:

Results for America (RFA) appreciates the opportunity to provide comments on the challenges faced and best practices adopted at the federal, state and local level to use data to build evidence and have attached our responses to questions 1, 2, 3, 4, 8, 9 and 10.

Transparent, robust data access is necessary for federal, state and local leaders to be able to harness the power of evidence to get better results now while investing in long-term prosperity and opportunity.

Governments at all three levels, however, are facing challenges related to lack of quality data, financial resources, and/or technical capacity.

We commend your efforts to identify and address these problems. You should feel free to contact Kate Tromble at kate@results4america.org with any questions you may have regarding our comments.

Sincerely,

Michele Jolin   David Medina   Kate Tromble
CEO & CO-Founder   COO & Co-Founder   VP, Federal Policy
Results for America   Results for America   Results for America

CENTRAL QUESTIONS

1. What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points they face in the evidence-based decision-making process.

The main challenges faced by local, state, and federal governments trying to develop and implement evidence-based policy include but are not limited to infrastructure, technical capacity, funding, and flexibility. The federal government has begun to address the infrastructure issue through implementation of the [Foundations of Evidence-based Policymaking Act](#) (Evidence Act), which requires specific leadership positions, policies, and strategic planning focused on developing the basis for policy and budget decisions grounded in evidence.

Some states, as articulated more particularly below, have followed suit and appointed chief data or performance officers and articulated state or city-wide goals for evidence-based policies. But, states and cities/counties struggle with enough technical know-how and capacity to fully implement evidence-based policymaking. Even state agencies that are data rich are often information poor; they lack sufficient analytical capacity. This is partly tied to not having clear learning agendas that ensure everyone is using the data they have to ask and answer a specified set of questions that are of practical interest to leaders and constituents.

The federal government can help by ensuring that federal funding streams for states and cities include the ability for states and cities to use those dollars to enhance their technical and analytical capabilities and develop learning agendas as well as to fund particular programs. Moreover, states and cities could benefit from federal dollars allocated specifically for evaluation and data capacity development. For instance, many state and local governments are asked to participate in evaluations but don't have the necessary expertise to create control groups because they do not have statistical experience and limited bandwidth beyond administering their programs. They also suffer from time and resource constraints that make participating in evaluations or data collections difficult. There is a broader and deeper pool of evaluation, data, and evidence expertise - as well as funding - available at the federal level. States and cities/counties know that and welcome the extension of that expertise and funding.

As noted, even when states and cities/counties develop the infrastructure and technical capacity to implement evidence-based policymaking approaches often the federal resources that fund their programs (particularly, education, workforce, child welfare and justice programs) are restrictive in how they can be used. Allowing states and cities flexibility over the use of their federal funds if they combine state resources and prioritize evidence in the distribution of those combined funds could incentivize more governments to embrace an evidence-based policymaking approach. Moreover, offering waivers and flexibility to states and cities that wish to

combine funding streams to support innovative interventions and approaches that they rigorously evaluate would further allow more states and cities to fully embrace an evidence-based policymaking approach.

Finally, data sharing remains a primary pain point for most states. For instance, state workforce agencies have limited access to state educational data, and no access to federal educational data such as the National Student Clearinghouse. In addition, state workforce agencies have limited access to the National Directory of New Hire Data housed at HHS Administration for Children and Families Office of Child Support Enforcement. In addition, state workforce agencies have no access to income tax data, which is incredibly important as we see more and more gig work in the U.S. economy. There is also currently very limited labor market and workforce information data sharing between states and no common data systems between states either. Beyond cross-agency data sharing and linking challenges, many state agencies also suffer from challenges linking data across parts of the same system (e.g., early childhood system, PK-12 system, and higher education institutions). This makes it even more difficult to track and measure the impact on investments and/or policies over time.

2. What are examples of high-impact data uses for evidence-based policy making that successfully effected change, reduced costs, or improved the welfare of citizens?

Through our [2020 Invest in What Works Federal Standard of Excellence](#), [2020 State Standard of Excellence](#), and work with more than 200 cities across the country, RFA has identified the following examples of high impact data uses at the federal, state and local levels.

- Federal [Examples](#):
    1. [Administration for Children and Families](#)' (ACF)
        - [TANF Data Innovation Project](#) supports cohorts of states to improve the effectiveness of Temporary Assistance for Needy Families (TANF) programs by helping them better leverage human services data. This has helped states enhance data analytics for program improvement and gain better understanding of issues so that they can strengthen integrated data systems and improve program integrity and payments.
        - ACF's Office of Planning Research and Evaluation's (OPRE) [Human Services Interoperability Demonstration Grants](#), help expand data sharing efforts by state, local, and tribal governments to improve human services program delivery, and identify novel data sharing approaches that can be replicated in other jurisdictions.
        - OPRE, through a partnership with the Office of the Assistant Secretary for Planning and Evaluation (ASPE), helps states [link Medicaid and Child Welfare data](#) at the parent-child level to support outcomes research.

Through this project, OPRE and ASPE work with two to four states to enhance capacity to examine outcomes for children and parents who are involved in state child welfare systems and who may have behavioral health issues. Of particular interest are outcomes for families that may have substance use disorders, like opioid use disorder. Specifically this project seeks to develop state data infrastructure and increase the available de-identified data for research in this area.

2. Department of Housing and Urban Development (HUD):
   - HUD has created an updated list of open data assets; numerous Policy Development and Research (PD&R)produced datasets for researchers and practitioners, including tenant public use microdata samples; and an eGIS portal providing geo-identified open data to support public analysis of housing and community development issues using GIS tools.
   - HUD has implemented data linkage agreements with the National Center for Health Statistics and the Census Bureau to enhance major national survey datasets by identifying HUD-assisted households, with updates continuing in FY20; making available major program demonstration datasets in secure environments; and producing special open-access tabulations of census data for HUD's partners.
   - HUD's engagement in cooperative agreements with research organizations, including both funded Research Partnerships and unfunded Data License Agreements, supports innovative research that leverages HUD's data assets and informs HUD's policies and programs. Data licensing protocols ensure that confidential information is protected. In 2019, HUD expanded the Standards for Success data collection and reporting framework for discretionary grant programs to cover Resident Opportunities and Self-Sufficiency Service Coordinator (ROSS) grants, Multifamily Housing Service Coordinator grants, and Multifamily Housing Budget-Based Service Coordinator Sites. The framework supports better outcomes by providing a more standardized performance measurement framework, better alignment with Departmental strategies, and more granular reporting to support analytics.

3. Department of Labor:
   - DOL's Performance Management Center created a performance reporting and dashboard system to review each agency's program performance, analyze progress, and identify opportunities for performance improvements. These performance reviews connect to

DOL's broader performance and evaluation activities. DOL's Office of the Chief Information Officer (OCIO) developed a new dashboard, the CXO Dashboard, which provides agency leadership instant access to key administrative data to access progress and performance and make data-driven decisions.

4. [Millennium Challenge Corporation](#) (MCC):
   - For every investment in implementation, MCC undertakes a Quarterly Performance Review with senior leadership to review, among many issues, results indicator tracking tables. If programs are not meeting evidence-based targets, MCC undertakes mitigation efforts to work with the partner country and program implementers to achieve desired results. These efforts are program- and context-specific but can take the form of increased technical assistance, reallocated funds, and/or new methods of implementation. For example, in FY20 MCC reallocated funds in its compact with [Ghana](#) after the country failed to achieve agreed-upon policy reforms to ensure the sustainability of the investments. Upon program completion, if a program does not meet expected results targets, MCC works to understand and memorialize why and how this occurred, beginning with program design, the theory of change, and program implementation. The results and learning from this inquiry are published through the country's Star Report, [Monitoring and Evaluation plans](#), and [tables of key performance indicators](#).

- [State Examples](#) :
  1. States leveraged data to better respond to COVID by connecting and linking administrative data sets or other existing data sets to ensure continuity of government services and programs.
     - The [Indiana Management Performance Hub (MPH)](#), overseen by the state's [Chief Data Officer](#), houses the integrated Education and Workforce Development database, which brings together data from 12 state agencies, including: the Commission for Higher Education, Department of Education, Department of Health, Department of Corrections, Department of Workforce Development, and Family and Social Services Administration to answer questions about the education and workforce pipeline. In addition, MPH has created integrated databases to address pressing program and policy issues related to [COVID-19](#), [opioids](#), [Medicaid](#), [fiscal transparency](#), and [other areas](#). MPH has been at the forefront of using [data](#) to drive decision-making for

Indiana's COVID-19 response, including studies to better understand the prevalence of the coronavirus and/or its antibodies.

- The Connecticut Departments of Education and Social Services leveraged data-sharing agreements by matching student and SNAP benefit data to automatically certify SNAP Pandemic EBT for more than 287,000 Connecticut students who receive free or reduced-price meals. This allowed the state to provide meals to 82,000 students participating in only the National School Lunch Program and School Breakfast Program, but who do not receive food assistance through SNAP, Medicaid, or other food assistance programs. The state also partnered with food retailers to allow SNAP enrollees to use their benefits to purchase eligible food items online.

- Amid the 2020 COVID-19 pandemic, Virginia's workforce system launched an improved integrated data system, governed by a data trust, that improves user experience through the new Virginia Career Works Referral Portal. The related Virginia Career Works Dashboard is a data visualization tool that conveys information about labor conditions and allows agencies to make real-time, data-driven decisions. These innovative systems demonstrated a potential cost savings of more than 94% over traditional approaches.

- In response to the federal COVID-19 Pandemic Unemployment Assistance program, Rhode Island's Department of Labor and Training partnered with the nonprofit Research Improving People's Lives and Amazon Web Services to develop a cloud-based system to share data and improve management of unemployment claims. This enabled Rhode Island to be among the first states in the nation to provide Pandemic Unemployment Assistance benefits in the face of record-high employment claims during the COVID-19 crisis.

2. Even prior to the COVID-19 pandemic, several states were integrating and linking administrative data across state agencies to improve the impact of their programs and respond based on insights generated from these integrated approaches.
    - A 2013 Kentucky law established the Kentucky Center for Statistics (KYSTATS), which collects and links high-quality, actionable data from 15 state agencies to improve education and workforce programs in the state.

By providing [data sets](#), publishing [reports](#), and fulfilling [research requests](#), the Center provides state-specific [insights](#) with appropriate [data privacy](#) and [data access](#) controls. It has more than [40 staff members](#) who are [dedicated](#) to "developing reports, responding to research requests, and providing statistical data about these efforts so policymakers, agencies, and the general public can make better-informed decisions." The Center is run by an executive director with oversight from a [board](#) composed of participating state agencies, and Center has developed a [research agenda](#) for 2020-2022 focused on issues of equity.

- New Jersey's [Prescription Monitoring Program](#) integrates data from multiple state agencies, including the Department of Health, the Division of Consumer Affairs, the Office of the Attorney General, and other law enforcement bodies, to power the [Overdose Data Dashboard](#). The Department of Health uses the dashboard to make decisions about access to medications, such as naloxone, designed to rapidly reverse opioid overdose and harm reduction services.

- The [Washington Education Research and Data Center](#)'s [memorandum of understanding](#) describes how data will be collected and shared among partners. It has a strong [focus on protecting individual privacy](#). The Center gathers 11 [partners](#), including state workforce, education, and child welfare agencies, to compile education and workforce data to improve student achievement and workforce outcomes.

- The Washington State Department of Social and Health Services maintains an [integrated client database](#) with data from 10 state agencies, 40 separate data systems, and millions of individuals receiving services through publicly funded health and human services programs in Washington State. This data is used for rapid-cycle policy analysis, program evaluation, [predictive modeling](#), and performance measurement to help agencies understand how health services and other factors are related to outcomes for persons served by public assistance programs. Predictive modeling and clinical decision support tools developed and maintained in the [Research and Data Analysis](#)'s integrated data environment have been used by the state's [Health Home Program](#), which provides intensive care management services to high-risk Medicaid beneficiaries, to [improve beneficiary health outcomes and lower costs](#). These lower costs have resulted in tens of millions in dollars in shared

savings payments from the federal Centers for Medicare and Medicaid Services.

- City Examples:
  1. Many cities have data-driven performance programs that have led to outcomes for residents.
     - **City of Tulsa**. Tulsa's **CARES program** is credited for a 70% reduction in 911 calls from its top 911 utilizers.

     - **City of Detroit** - Housing Resource Centers. Utilizing data from the impacts of the 2008 on evictions and foreclosures and how destabilizing this is for families, the City of Detroit's Housing and Revitalization Department worked to request that $1.5 million in CARES Act funding be used to provide additional support to Housing Resource Centers. The Housing Resource Centers connect low income residents to housing services which include: providing eviction prevention services, rental support, home repair, tax and title management services.

       The Housing Resource Centers are designing the Housing Resource Center program in partnership with the city to address acute housing needs, develop shared program metrics and ultimately improve results for residents through an integrated service model.

     - **City of Newark** - Landlord Registrations. The City of Newark and the City of Racine wanted to be able to measure and preserve affordable rents for their residents but did not have a reliable way of gathering this information. Both cities are working with What Works Cities to increase landlord registrations for their properties which will help preserve affordable housing and ensure city code enforcement

     - **City of Lansing** - Children Savings Accounts. Using the lessons gained from their technical assistance with What Works Cities, the City of Lansing played a key role in informing Michigan's statewide Children Savings Account programs administered by the Community Economic Development Association of Michigan (CEDAM). CEDAM has now begun requesting performance metrics developed by the City of Lansing in partnership with What Works Cities partners (GPL and GovEx) on a quarterly basis. Although

CEDAM had administered Children Savings Accounts for several years, impacting over 18,000 students across the state to date, they had never requested performance metrics from partners before.

3. Which frameworks, policies, practices, or methods show promise in overcoming challenges experienced by governments in their evidence building?

1. Federal Examples:
   ○ Providing resources for evaluation can be helpful in evidence-building. This comes through direct spending for research and evaluation through budgets or program set asides. For example, in our 2020 Invest in What Works Federal Standard of Excellence, nearly half of the nine participating agencies (44%) reported investing 1% or more of their budgets on evaluation-related activities-- these agencies include: ACL, USAID, CNCS, and MCC. Federal agencies and departments can also provide technical assistance and support on data collection, research, and evaluation activities.
      ■ Department of Education. The Regional Education Laboratories (RELs) provide extensive technical assistance on evaluation and support research partnerships that conduct implementation and impact studies on education policies and programs in ten geographic regions of the U.S., covering all states, territories, and the District of Columbia. Congress appropriated $55.4 million for the RELs in FY20. Also, IES's State Longitudinal Data Systems grants support states in developing their data share infrastructure as well as their technical capabilities.

      ■ Department of Housing and Urban Development. For FY20, HUD is providing $91 million of technical assistance to equip the Department's program partners with the knowledge, skills, tools, capacity, and systems to implement HUD programs and policies successfully and to provide effective oversight of federal funding. State and local governments and authorities are among the eligible applicants, with approximately 23 awards expected. Community Compass integrates technical assistance funding from four major HUD program areas to better reflect the cross-cutting nature of housing and community development challenges. Eligible technical assistance activities include training and tool development to help program partners improve program management, evaluation, and performance measurement, and the Community Compass program itself has an increased evidence-based focus for FY20.

- AmeriCorps: Research and Evaluation funds a contractor to provide AmeriCorps grantees with evaluation capacity building support ($500,000 of the $4,000,000 evaluation budget). R&E staff are also available to State Commissions for their evaluation questions and make resources (e.g., research briefs summarizing effective interventions, online evaluation planning and reporting curricula) available to them and the general public. AmeriCorps awards investment fund grants to State Commissions ($8.5 million in FY20), of which approximately one-third will be used for data and evidence capacity building activities based on prior year activities.

- Department of Labor. Grantees and programs that participate in DOL evaluations receive technical assistance related to evaluation activities and implementation such as the [Evaluation and Research Hub (EvalHub)](). DOL agencies, like ETA, are also making a concerted effort to help states and local areas build evaluation capacity to meet the program evaluation requirements for the Workforce Innovation and Opportunity Act and Reemployment Services and Eligibility Assessment (RESEA) through tools such as RESEA program evaluation technical assistance (RESEA EvalTA). A suite of evaluation technical assistance resources is being developed throughout FY20, including webinars and other tools and templates to help states understand, build, and use evidence. DOL's evaluation technical assistance webinar series for states has been [posted online]() to the RESEA community of practice.

2. State Examples:
   - The **Texas Workforce Commission** has developed an evidence framework that clearly defines the process by which workforce practitioners can begin to develop and use evidence of effectiveness in grant-funded programs, and the state can evaluate programs and begin to develop evidence of effectiveness. Texas is implementing a two-pronged approach that will link grant funds directly to priority outcomes while continuing to support innovative practices. This approach will create incentives for grant applicants to identify and use program models that have demonstrated a record of effective outcomes. To continue to encourage innovative, but less-tested program models, the state designed an evidence tier framework to support a graduated method for programs and applicants to adapt to evidence-based grants. Performance-based outcomes metrics and prior grant outcomes data will be required in the application process, where relevant. An

evaluation process is also being developed. Embedding outcome-based applications and outcomes reporting in state workforce grant programs will help the state learn about the implementation, effectiveness, and cost of various approaches.

○ In **Washington**, a 2013 Executive Order established Results Washington to strengthen performance management and continuous improvement throughout Washington state government. From 2014 to early 2020, Results Washington conducted Results Review meetings with the Governor 10 times per year. The meetings, recorded and publicly posted, allowed the Governor and state agency directors to discuss objectives, improvement strategies, and metrics. Results Washington is currently refocusing its efforts toward a new Public Performance Review process. This new process creates the opportunity to better partner with state agencies on complex, cross-enterprise projects. The state is to develop an approach that fosters partnership and focuses on the outcomes that matter to state agencies, the Governor, and ultimately the state of Washington.

○ **Tennessee's** Governmental Accountability Act of 2013 established a statewide performance management system, Transparent Tennessee. The Office of Customer Focused Government and the state's Chief Operating Officer continuously track and monitor performance data and report publicly available operational performance on Transparent Tennessee's dashboards, which include specific goals, targets, and performance data for each of the state's strategic priorities. The site also includes state fiscal data as well as OpenMaps, which showcases key metrics and an interactive budget tool.

○ In **Colorado,** the Colorado State Measurement for Accountable, Responsive and Transparent Government (SMART) Act requires all state agencies to submit annual performance reports to the state legislature as part of the state's budget process. In addition, the state's FY 2020-2021 budget development instructions (pp. 10-12) prioritize new program requests "based on the evidence and body of research supporting the program's effect on desired outcomes and proposed implementation plan." In the FY 2020-2021 budget cycle, the state applied an evidence continuum to budget requests and used that criteria to inform resource allocation decisions.

In addition, the Colorado Governor's Office and the Colorado Evaluation and Action Lab co-designed the Linked Information Network of Colorado (LINC) to facilitate data sharing for research and analytics. The Network is designed to

share data across state agencies and provide de-identified data to perform robust, academically rigorous research to inform policy. LINC has a three-tier legal structure, which includes: (1) an enterprise memorandum of understanding (eMOU) signed by all data providers; (2) data-sharing agreements to secure, handle, and anonymize data for all LINC projects; and (3) data licenses with roles and responsibilities for users of LINC project data. In addition, the Colorado Department of Higher Education was the first state agency in the nation to partner on a pilot project with the U.S. Census Bureau to match federal unemployment insurance data with postsecondary degree completion data. At the state and county level, the Colorado Department of Human Services' C-Stat performance management system facilitates data sharing among its 64 counties by providing dashboards to track key metrics and Performance and Partnerships Exchanges to facilitate sharing of best practices.

- In **Connecticut**, a 2018 law required each state agency to designate an agency data officer to manage high-value data sets and coordinate data-related activities with the state Chief Data Officer. The Chief Data Officer, along with individual agency data officers, is required to biannually update the state data plan, which covers open data and creates data standards for agencies. The plan also contains 11 principles and accompanying practices that all agencies should adopt to improve their management, use, sharing, and analysis of data. In addition, a 2019 law required a report on the legal issues surrounding interagency data sharing. Based on analysis of 17 state agencies and 224 data sharing agreements, the report recommends: 1) establishing a coordinated governance structure for cross-agency data sharing, and 2) implementing cross-agency data-sharing agreements that are more flexible and durable. Building on this report, Connecticut released a Data-Sharing Playbook in 2020 to help agencies share data safely, securely, and ethically.

- In **Ohio**, a 2019 executive order consolidated state data systems into the InnovateOhio Platform, which uses data as "a shared strategic asset" whose "value is multiplied when data sets are linked across programs and organizations" through data integration and management tools. The executive order created a presumption of data-sharing between state agencies, except where a specific legal prohibition is identified in writing. Since its launch, InnovateOhio and the Ohio Department of Administrative Services have collaborated with state agencies to incorporate 1,600 information systems into the State's cloud environment. As of June 2020, the InnovateOhio Platform recovered over $1 million in duplicate payments by applying a data analytics tool

to state agency spending ledgers.

- **California** released its state data strategy in 2020 and its statewide Open Data Policy encourages departments to share data in standard and accessible formats through the California Open Data Portal. As outlined in the California Open Data Handbook, the state's open data efforts are designed to improve collaboration, expand transparency, encourage innovation, and increase effectiveness. In addition, the state hosts CalData, a professional network for government officials and partners to promote the best uses of open data.

- A **Virginia** 2020 executive order established data governance bodies to improve data sharing between state agencies and localities. The Executive Order implements the recommendations from the 2019 publication Data Sharing and Analytics Governance Structure for the Commonwealth of Virginia Report. The Virginia open data portal also features resources on data use, a data dictionary, and an open data catalog.

- **Indiana's** Indiana Data Partnership, launched in 2019, brings together government, nonprofit, and private sector entities to share data, talent, and technology to solve key challenges impacting Indiana residents. The Partnership was formed as an extension of the Indiana Management Performance Hub to create a secure, replicable, and sustainable framework to help partner organizations use shared data in coordinating efforts and maximizing holistic solutions. Initial projects included combating the opioid epidemic, improving education and workforce development, mapping local health delivery, and a networking analysis.

4. The Commission on Evidence-Based Policymaking (See: *www.cep.gov*) recommended the creation of a National Secure Data Service (See Commission Report at *www.cep.gov*). Do you agree with this recommendation, and if so, what should be the essential features of a National Secure Data Service?

RFA agrees with the Commission's recommendation to create a National Secure Data Service. We believe the best way to carry out this recommendation is, as recommended by the Data Foundation in its July 2020 strategy, to create a new federally funded research and development center (FFRDC) at the National Science Foundation (NSF). The essential features of this approach are detailed in the Data Foundation's strategy, but in summary they include:

- **Responsibility and organization within NSF's National Center for Science and Engineering Statistics (NCSES), which is a CIPSEA-covered principal federal statistical agency**. Being housed within NSF would make the FFRDC subject to federal oversight, and accountable to Congress and OMB. In addition, existing within NCSES would permit the FFRDC to operate within the CIPSEA framework re-authorized by Congress in 2018, including both data sharing and use capabilities. While this attribute differs from the Evidence Commission's Recommendation 4-1, in part, it allows for the same intent for the capacity to engage in record linkage and access.

- **Transparency.** The FFRDC should be required to make periodic reports to OMB and Congress about its activities and projects. It should also be required to communicate with the public about its projects and the value of its undertakings.

- **Accountability.** The FFRDC should be periodically reviewed by Congress, GAO, and the NSF Inspector General to ensure adequate compliance with stated processes and CIPSEA authorities through performance and compliance audits. A user feedback mechanism should also be created.

- **Interagency Cooperation**. For the FFRDC to be successful federal agencies will need to be encouraged to share their data and improve access to that data. This encouragement should come from OMB and the Interagency Statistical and Evaluation Councils as well as the Chief Data Officers Council. In addition, NSF will need to establish a viable, streamlined business process for project approvals, particularly when projects require data from multiple agencies.

- **Open, competitive contract award process.** The contract award for the FFRDC should be open and competitive. Any bidder should have to demonstrate its capabilities, including its ability to jointly: (1) operate the core capabilities for data sharing, linkage, and compliance with CIPSEA protections, (2) develop and deploy current and future privacy-protective technologies in coordination with federal agencies, (3) coordinate with federal agencies (sponsor and non-sponsors) as well as the research community and other qualified individuals for approved projects, (4) operate within the guidance of an oversight committee, (5) have a demonstrated ability to recruit and retain qualified staff with appropriate and relevant expertise; (6) operate business processes for project approvals, (7) maintain accessible project inventories, and (8) implement an ongoing program of continuous improvement in meeting customer needs.

- **Governance board**. Consistent with the Evidence Commission's Recommendation 4-2, NSF should establish a governance board to provide general guidance on policies and

practices implemented by the FFRDC.

- **CIPSEA designation.** Either Congress should designate the FFRDC as a CIPSEA agency in law, or the Director of NCSES as part of the FFRDC contract should designate the FFRDC as a CIPSEA agent.

- **Data leadership.** The Executive Director of the data service should have experience in government data activities and deploying privacy protections.

- **Training.** The FFRDC should be required to conduct a variety of activities that explicitly support training and education for potential users of the data service including low- or no-cost educational opportunities for internal government and external researchers, industry stakeholders, non-profits, and government agency staff, and should explicitly communicate the limitations and restrictions imposed by the CIPSEA privacy framework.

- **Government-wide learning agenda for researchers.** The FFRDC should compile an analysis of questions within individual agency learning agendas that can be addressed with available microdata within the existing infrastructure, support researchers in understanding those questions and accessing the data, and include any stakeholder feedback that was provided in response to the questions.

DATA SERVICES TO FEDERAL, STATE, LOCAL AGENCIES AND THE PUBLIC

8. What are the most pressing data needs of state and local decision makers and how would making data accessible from federal agencies help meet those needs? To share data, what guarantees do data owners (or data controllers) need regarding privacy, data stewardship, and retention?

For states, a pressing need is to expedite data sharing across and within their agencies. Some have solved this with state data by creating formal, standardized, and easy to apply agreements that agencies can use to share data without risking privacy or security. Some, like Nevada, have dedicated data privacy experts to support effective and legal data sharing and access. Federal agencies can support this need by both enabling linked data (as discussed in response to question 4 above) and by issuing coordinated federal guidance that eases restrictions on data sharing, investing in data infrastructure, coordinating data investments, and providing more clarity about the allowable uses for program funds to support data sharing, collection, and other activities. For example, the HUD's Community Development Block Grant includes a 20% set aside for administrative costs, which may encompass evaluation-capacity building efforts and evaluations of CDBG funded interventions. Further clarity on such authorized uses to states,

localities, and other grantees could increase evidence-building capacities that states and localities need and seek.

Another one of states' most pressing needs is to be able to understand the long-term impacts of their services. Millions of young people are being served either through traditional education or other social service programs and once they "age out," it is incredibly hard to see what happens to them over the long-term so states are not able to measure the impact of their programs. The same issues exist for adults they serve, especially if they provide training or refer them to other organizations that can help them. There is no holistic view of how and when a person interacts with one or more programs in order to measure impact. Not having the full picture of that person and being limited to just the data available from a siloed agency means that states cannot evaluate as many factors, and they cannot account for complementary services from other programs before, after, or even parallel to their own services.

For example, consider two identical youths supported through the WIOA Youth program, One goes to college, the other doesn't and doesn't go to other post-secondary education training. If the state just looks at wages X years later, they are going to likely see one did very well and the other didn't. Without the information about post-secondary enrollment/achievement, they can't put longitudinal outcomes in context and appropriately weigh them in their analysis of the effect of their WIOA Youth program.

Another pressing need is enhanced wage records. Labor Market and Career Information (LMCI), through a cooperative agreement with BLS, manages key statistical programs to produce employment, wage, and other labor force data. Bureau of Labor Statistics (BLS) programs rely heavily on Unemployment Insurance (UI) wages records for the foundational data, further enhanced through the collection of survey-based data. These programs would benefit from the addition of variables to the quarterly wage record reports that employers submit as part of the UI program, submitting an enhanced wage record. Consistent definitions for wage record elements are needed in order to properly provide data comparison across all states. Additional data elements such as, date of hire, occupation title and hourly wage rate would improve the accuracy and overall quality of the data and enhance the states' ability to measure education and training outcomes. BLS maintains strict confidentiality rules and guidelines to protect each respondents' confidentiality and data collected are used for statistical purposes only.

On the city level, particularly in the past few months, the most pressing need being discussed is a federal standard for public health data (specifically COVID data). At least one city is taking it upon themselves to form an intra-governmental data-driven COVID task force but is struggling because the state, county, and city lack consistency around their data policies and processes.

Additional pressing needs revolve around the sharing of best practices. For example, cities in Results for America's economic mobility cohort often express a desire for information about what other cities are doing to equitably distribute the increased Community Development Block Grant funds they received through the CARES Act. Similarly, cities really want to know what the most effective approaches or interventions are for getting people who have been forced out of work by COVID back into jobs. Loss of income and work have been hitting their most vulnerable residents the hardest and they want to make sure the steps they are taking can help them recover quickly and equitably. But, this requires access to data and information they do not currently have.

Also, cities such as Racine are working with their local workforce development boards to track wage data specific to graduates of city GED programs. Being able to extract those individuals' wage data in an ongoing and systematic way is critical to long term efforts to scale and sustain such programs and to help the City assess the effectiveness of other local workforce interventions.

9. What are the key problems and use cases where collaborative work between federal, state, and local authorities' data analysis can inform decisions? What are key decision support tools? How would greater communication about data and tools benefit expanded evidence building?

Overall, one of the main issues states encounter is inconsistency in definitions of common data elements and coding structures among federal, state, and local agencies. One specific example is how workforce agencies define industries. Cyber Security & Infrastructure Security Agency (CISA) released 16 critical infrastructure sectors. These did not align to NAICS sectors and states ultimately decided how occupations aligned to CISA sectors based on criticality and local needs, taking different approaches in what was considered "essential." Consistency among definitions would allow all agencies to gather and report data in a more meaningful way, making sure we can provide measured relevant outcomes. Federal evaluation clearinghouses such as CLEAR and Crime Solutions are tools that help to showcase effective models. CLEAR's stated goal is to "make research on labor topics more accessible to practitioners, policymakers, researchers, and the public more broadly so that it can inform their decisions about labor policies and programs." As more evidence-based grantmaking occurs in states, they will look to add effective models and program evaluations to these national tools in coming years.

In terms of a use case where collaboration was effective and critical, state responses to COVID-19 rises to the top. State's COVID-19 responses were exemplary, with some states tracking state allocations of federal emergency funds and response efforts through robust data dashboards. For example:

- Minnesota built a comprehensive [public data dashboard](#) that tracks health and economic data, including [response data](#) on hospital capacity, critical care supplies, child care, and funding. The dashboard also [tracks](#) the disparate impacts of the virus on communities of color to enhance collaboration with stakeholders and "eliminate systemic barriers so communities of color and indigenous communities can recover with dignity and resiliency." Such a collaboration includes an ongoing partnership with J-PAL North America that is leveraging the data to identify how to increase take up of COVID-19 testing in Black and Latinx communities based on local needs and preferences.

- In 2020, California launched the [California COVID Assessment Tool](#) to identify potential COVID-19 hotspots, predict which hospitals might reach capacity, and proactively allocate resources to such hotspots. This innovative assessment tool is a "model of models," which incorporates the statistical projections of several leading research institutions. Notably, the assessment tool allows residents to create their own scenarios for transmission potential in the coming months depending on specific public health guidelines. Further, California released the source data sets on [California's Open Data Portal](#), allowing the public to examine the data underlying the Assessment Tool.

- The Connecticut Departments of Education and Social Services leveraged data-sharing agreements by matching student and SNAP benefit data to automatically certify [SNAP Pandemic EBT](#) for more than 287,000 Connecticut students who receive free or reduced-price meals. This allowed the state to provide meals to 82,000 students participating in only the National School Lunch Program and School Breakfast Program, but who do not receive food assistance through SNAP, Medicaid, or other food assistance programs. The state also partnered with food retailers to allow SNAP enrollees to use their benefits to purchase eligible food items online.

- [North Carolina](#) and [Tennessee](#) (among other states) had pandemic relief tracking dashboards.

INFRASTRUCTURE FOR MEETING PUBLIC AND EVIDENCE BUILDING NEEDS

10. What basic public data services are essential for a data service to address existing capacity gaps and needs? What infrastructure or incentives can the federal government create that locals and states cannot?

The federal government can better facilitate and support data-linkage and integration. The most efficient data sharing model would be one that is centralized and standardized. Anything else requires bilateral agreements between agencies and states and local governments. It drives up the cost and changes the cost-benefit analysis on doing evidence-based policy work. It encourages people to try to maximize their siloed data – because it is too hard to get more. Federal laws, programs, and funding should require secure data sharing and evaluation work as a precondition to access the money. This should apply to federal agencies as well as to state and local government agencies.

For example, states have implemented education longitudinal data systems through the U.S. Department of Education's SLDS grant, which was administered most recently in FY20. Connecticut's statewide longitudinal data system, P20 WIN, brings together workforce, education and supportive services data to inform educational policy and practice. Created by participating agencies, it houses extensive documentation, including data-sharing agreements, a robust data management process, and a data dictionary. In 2020, P20 WIN received an expansion grant through the National Center for Education Statistics to build agency analytical capacity and to expand P20 WIN to include information from state human service agencies.

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Memorandum to the Advisory Committee on Data for Evidence-Building

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Subject: Comments[1] for the Advisory Committee on Data for Evidence Building (Document # 2020-27489) on Questions 1, 2, 3, 7, 9 and 10

Thank you for the opportunity to submit comments to inform your committee's analysis and recommendations. Our comments reflect our shared insights from working in senior federal policy positions at the White House Domestic Policy Council and the Office of Management and Budget as well as our experiences working in or with state and local governments on projects that require integration of data across systems. Some of our ideas were key motivators for a project we recently launched at the Tobin Center – "The Hotlist Project: Actionable, Data-Intensive Research Priorities" – which is described in more detail below.

Our comments address questions 1, 2, 3, 7, 9, and 10 in the Federal Register notice.

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[1] General disclaimer: Nothing in these comments are intended to represent – nor should be construed as – an official or unofficial position of Yale University. Rather this memorandum presents the suggestions and opinions of authors affiliated with the Tobin Center for Economic Policy at Yale, based on their relevant policy experience, in response to the formal public solicitation of comments in the Federal Register.

Question 1: **What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly, describe the bottlenecks and pain-points they face in the evidence-based decision-making process.**

- **At the state and local level** -- where improving outcomes for individuals and families requires effective coordination of multiple programs serving the same populations – **many of the barriers to using data to improve decisions are the result of unclear and confusing federal requirements.** It is no one's responsibility in the federal government to step into the shoes of state and local leaders who are trying to use data to improve decision-making but are fearful of running afoul of federal requirements. States and localities need greater clarity and strong encouragement to:
    - Use program funds for data and evidence-building activities;
    - Braid and blend funds from multiple sources to build cost-effective infrastructure, analytics and evaluation capacity (including staff recruitment and funding) that supports multiple programs;
    - Share data across multiple programs that serve the same populations, including for activities that are covered by multiple federal privacy laws such as FERPA and HIPAA.

  These challenges could be addressed through an aggressive, cross-agency technical assistance strategy to develop coordinated guidance, concisely written in plain English, which is broadly disseminated to program administrators, financial managers, attorneys, and auditors who work at the federal, state, and local levels.

- **At the federal government level,** while progress is being made on learning agendas and improved data infrastructure, there are serious gaps that will impede its ability to use data and evidence to address the nation's most pressing challenges. Gaps include:
- **Lack of mature processes for:**
    - **Identifying and prioritizing policy challenges and key questions** that can be more effectively understood and addressed by integrating data from different systems that sit in different federal, state, or local agencies or with their contractors and grantees. To date, federal agency learning agendas have been narrowly focused on specific agency priorities and programs without an eye toward national challenges that require cross-sector and intergovernmental collaboration, including President Biden's priorities for effective pandemic response, economic recovery, and racial equity.
    - **Designing efficient, re-usable data-linkage and analysis processes** for building evidence, so that individual projects that link data are not "one-off" studies or dead-end pilots that fail to build capacity for future applications that could be taken to scale.
    - **Collaborating with non-federal stakeholders to identify shared priorities and key barriers and to co-create efficient solutions** that will maximize the benefits to federal, state and local governments, providers, and the public. For example, the same data-linkage infrastructure solutions created to support research and evaluation could be used to efficiently generate program performance

information (e.g., employment outcomes), dramatically streamlining the costly and burdensome data gathering and reporting processes that states, localities, and other grantees now use.

- **Human capital gaps** that result from underinvestment in recruitment and training of data and research experts. Also, relatively few federal agencies have developed mature programs that utilize academic-government collaborations to strengthen their research and evaluation capacity at low cost.

Question 2: **What are examples of high-impact data uses for evidence-based policy making that successfully effected change, reduced costs, or improved the welfare of citizens?**

Integrated data can be used to:

- **Respond to crises such as the pandemic.** For example, Allegheny County PA uses integrated data to publicly report COVID hospitalization and case rates by race and reports outcomes by demographic group, which inform strategies to improve outreach and targeting of services. Few other jurisdictions have this capacity, in part because the federal government has not created the financial incentives to encourage broader adoption of these approaches. See: https://www.alleghenycountyanalytics.us/index.php/2020/06/15/allegheny-county-covid-19-data-detailed-dashboard/

- **Generate cost-saving estimates to inform policy:** At the state and local level, several communities have linked emergency room and jail data to reveal the portion of homeless population for which supportive housing would yield savings. This analysis motivated numerous communities to launch Pay for Success projects focused on supportive housing, listed here: https://pfs.urban.org/get-started/content/pay-success-and-housing. At the federal level, during the GW Bush administration, matches between the Education Department's student aid records and IRS tax data measured the amount of Pell grant funding that had been awarded to ineligible students who exceeded income thresholds. The findings informed the Obama administration's decision to allow student aid applicants to pre-populate their FAFSA student aid applications with IRS tax data instead of self-reported data. This policy reduced Pell overpayments, and Congress was able to redirect the savings to increase the size of Pell grants to eligible students.

- **Generate rigorous evidence through grants to state and local governments and non-profits:** Government can require grantees to embed rigorous evaluations into their program designs that utilize high quality administrative data to measure results at low cost. The Education Department's Education Innovation and Research (EIR) program, which uses a tiered evidence design, requires rigorous evaluations that often leverage State Longitudinal Data Systems to efficiently and accurately measure student learning outcomes. Treasury's Social Impact Partnerships to Pay for Results Act is designed to build evidence about effective interventions that improve impact on beneficiary outcomes and generate cost savings to government: https://home.treasury.gov/services/social-impact-partnerships/sippra-pay-for-results. (Note: The capacity to learn from SIPPRA

grants would be significantly increased if evaluators could access outcome and financial data held by federal agencies.)

- **Streamline and coordinate services and reduce redundancy:** States are integrating data across health and human services systems to improve enrollment and eligibility verification and strengthen program coordination. Some are building upon this infrastructure to improve their analytics capacity. See: https://www.cbpp.org/research/state-innovations-in-horizontal-integration-leveraging-technology-for-health-and-human

- **Perform predictive analytics to support smart targeting of funds:** Some states and localities are using predictive analytics to Identify common patterns of system engagement that precede costly safety net usage, thereby enabling programs to more efficiently target limited resources where they can maximize impact. In Oregon, researchers found seven factors in birth record data that point to a 40% likelihood of later child welfare system engagement, allowing more intelligent targeting of preventive services to families most likely to need support, which drives future savings. See Oregon's Safety at Screening Tool: https://www.oregon.gov/dhs/ORRAI/Documents/Oregon%20DHS%20Safety%20at%20Screening%20Research%20Brief.pdf

- **Develop and publish consumer report cards:** By linking data across systems, government can generate and disseminate key performance indicators that are useful to both consumers and government decision-makers. The U.S. Department of Education's College Scorecard links student aid program data with IRS tax data to generate average earnings for graduates of higher education institutions, by program of study.   See: https://collegescorecard.ed.gov/

- **Improve performance metrics.** Researchers can study what early indicators of success are the best predictors of long-term impacts using methods similar to the surrogate index described in this Raj Chetty paper: https://opportunityinsights.org/paper/the-surrogate-index/. This type of analysis could help government programs develop improved performance metrics that incentivize broader adoption of strategies correlated with long-term impacts.

- **Deploy data-driven behavioral insights to improve lives and increase efficiencies:** Governments can use "nudge" approaches and A/B testing to spur key actions, such as timely community college re-enrollment that reduces drop outs, follow through on tax payment, and increased enrollment in financial savings programs. This was a major focus of the Obama administration's White House Social and Behavioral Sciences Team: https://sbst.gov/

- **Track and improve performance of services in real time:** By providing service providers with real-time data, providers can better support clients. In Santa Clara County (California), social workers are pinged if a mental health client has a destabilizing event, such as an arrest, so the client can be intercepted and provided appropriate care at lower costs and with better results. See: https://www.thirdsectorcap.org/santa-clara-county-partners-in-wellness/

Question 3: **Which frameworks, policies, practices, or methods show promise in overcoming challenges experienced by governments in their evidence building?**

Government's capacity to overcome challenges to evidence-building can be dramatically accelerated by:

- Selecting **important policy challenges and important associated research questions** that require government-researcher collaborations; and
- Enlisting **collaboration partners to co-create efficient processes and infrastructure** (including data-linkage infrastructure) for answering the questions; and
- Designing new **processes and infrastructure so that can be re-used** to address a wide range of policy-relevant questions.

Many of the nation's most pressing challenges related to improving health and economic well-being require collaboration between multiple federal agencies, state and local governments, and their service delivery partners who work on the front lines. Academic researchers and data scientists as well as philanthropies can contribute expertise and resources.

To demonstrate how the federal government could embed the above approach into its evidence-building strategies, the Yale Tobin Center for Economic Policy has recently launched **"The Hotlist Project: Actionable, Data-Intensive Research Priorities",** which we hope will inform the Advisory Committee's recommendations. Over the past three months, we have developed several initial high-impact project concepts based on consultations with federal agency staff at Treasury, DOL, ACF, HUD, ED, and VA; state and local government officials in Virginia, Rhode Island and California; academic researchers and data scientists at MIT's JPAL North America,the Policy Lab at Brown University, and faculty at Yale and Georgetown Universities; numerous philanthropies; and others. All of these initial project ideas would leverage linked administrative data and could utilize academic-government collaborations to make faster progress and better results. We have already won philanthropic support to launch the project and are beginning discussions with over a dozen philanthropies to gauge their interest in supporting the development of some of the specific project concepts with government and academic partners. Potential roles for philanthropy include supporting academics who could serve inside government as IPAs or financing workshops to scope out and co-design projects with federal, state, and local officials, academic researchers, and other relevant parties.

A few illustrative project concepts that have emerged from our discovery process with federal agencies, academia and philanthropy include:

1. **Transforming processes for measuring employment outcomes in federally funded programs supporting economic mobility,** including employment and training, prisoner re-entry, Americorps, substance use treatment, and subsidized housing. This collaboration would use academic data scientists and researchers who serve as IPAs in Treasury, HHS, and other key agencies to develop infrastructure and processes for linking program participant data with tax data held by IRS and potentially quarterly wage and employment data held by HHS' National Directory of New Hires. The methodology would be modeled on the College Scorecard, which

links Education Department student aid data with IRS tax data to produce aggregated earnings by school and program of study. The new infrastructure and processes could be used to:

- Produce "employment scorecards" for education and training programs, providers, interventions, and jurisdictions to promote accountability and provide useful information to a broad range of decision-makers.
- Improve capacity to conduct low-cost, high quality RCTs and follow-up studies of the long-term impact of interventions on employment outcomes
- Create efficient infrastructure available to state and local jurisdictions and training providers seeking to shift from activity-based accountability to outcome-focused accountability.
- Significantly reduce burden and increase the accuracy of grant program performance reporting that often requires grantees to either collect self-reported income and earnings from prior program participants or to use incomplete data from state employment systems.

Building capacity to generate employment scorecards would enable grantees to take advantage of flexibility recently included in section 200.102 of OMB's government-wide grant regulations, which allow standard grant reporting requirements to be waived "in support of innovative program designs that apply a risk-based, data-driven framework to alleviate select compliance requirements and hold recipients accountable for good performance".

2. **Establish a "SIPPRA Data and Evaluation Lab" .** The Social Impact Partnerships to Pay for Results Act of 2018 established a $100 million Treasury Department Fund to make outcome payments for state and local projects, backed by strong evidence, that hold potential to improve outcomes for vulnerable populations while reducing government costs. A portion of the government savings much be federal.   Currently, Treasury requires each project applicant to design the evaluation, identify data sources, and negotiate data-sharing agreements, which are burdensome, time-intensive, and costly steps that have been a major hurdle for previous Pay for Success projects. Because the federal government holds some of the most accurate and complete data for measuring program outcomes, costs, and savings for certain SIPPRA-eligible interventions, facilitating access to federal data and utilizing standard measurement and evaluation methodologies could significantly enhance the quality of SIPPRA evaluations while lowering their costs. A cross-agency team, supported by academic IPAs, could create a SIPPRA Data and Evaluation Lab to: (1) create internal capacity to conduct key portions of SIPPRA evaluations using the scorecard approach above; (2) create standard protocols and data use agreements for accessing federal data that can be shared with external evaluators; and (3) develop standard methodologies and templates for measuring impacts, costs, and savings to improve comparability across projects. When appropriate, evaluators for approved SIPPRA projects could conduct evaluation activities inside the federal government while serving as IPAs.

   The Lab could also be used for non-SIPPRA evaluations that measure impact on outcomes and/or cost savings using federal data, which could guide future policy decisions and legislation. Historically, Congress and the Executive Branch have been able to agree on bipartisan legislation to mandate cost-savings measures in entitlement programs if a data-

match provides a reliable savings estimate that the Congressional Budget Office can score as an offset to a new spending initiative.

3. **Study ways to improve targeting of federal resources based on objective indicators of need and racial equity.** By building capacity to utilize Treasury's USA Spending data base to compare actual funding allocations to states and localities to alternative allocations based on objective indicators of need, researchers could assist federal, state, and local policymakers to adjust the criteria they use to allocate funds. To better understand racial disparities in how funds are allocated, Treasury's USA Spending data could be linked to racial and ethnic data held by another agency, such as the Social Security Administration. The findings could be used to inform allocation adjustments that are based on objective indicators of need that correlate with racial disparities.

4. **Conduct feasibility studies using federal-state data linkages.** A number of states have created integrated data platforms for merging individual-level data across state-administered programs. While these platforms can answer many of a state's priority policy questions, gaps in the data limit accuracy and completeness. (For example, employment data held by a state may not include residents who work outside the state, or may include employment data for people who work in the state but reside in a different state.) A cross-agency, intergovernmental project team involving federal agencies that hold high-value national data (e.g., IRS, HHS, SSA, ED, Census, HUD, VA) could collaborate with several states to identify important questions that require linking data across levels of government. The collaboration could develop and test efficient ways to answer key questions of interest to multiple states. This project could help inform the design of a federally funded secure data service that could be used for a broad range of questions (e.g., the Coleridge Initiative's Administrative Data Research Facility). The project could leverage existing partnerships between state governments and academic institutions (e.g., the Policy Lab at Brown, California Policy Lab, Colorado Evaluation and Action Lab) and use IPAs in federal agencies to strengthen federal agency capacity for this project. The groundwork for future projects that link state health and human services data with federal tax data has already been laid through a data-linkage project already underway between the Virginia Department of Social Services and the IRS.

Question 7: **Government agencies have argued that secure data access has value because it (1) improves service delivery; (2) improves efficiency (lowers cost); (3) produces metrics for performance measurement; and (4) produces new learnings/insights from the data. Which of these propositions do you agree with and why? Do you have examples that demonstrate these benefits? Do you have other examples of the value of secure data access?**

We agree with all four propositions, which are illustrated by the examples in our response to question 2, above. It's notable that the secure data linkage process that was established many years ago between the Education Department and IRS to measure Pell grant overpayments (in order to improve efficiency and lower costs) laid the groundwork for other uses of linked data, including:

- Improving service delivery and lowering administrative costs by allowing student aid applicants to authorize IRS data to be shared with Education to prepopulate the FAFSA application;
- Producing new metrics for performance measurement for student aid programs by measuring average income of former college students, by school and program of study; and
- Producing new learnings/insights from the merged data by making it available to outside researchers, such as Raj Chetty and his colleagues at Opportunity Insights who have used the merged data for groundbreaking research on economic mobility.

These examples illustrate how new data-linkage processes and infrastructure developed for one purpose can be re-used to improve the effectiveness and efficiency of other critical government functions, including but not limited to research and evaluation.

Question 9: **What are the key problems and use cases where collaborative work between federal, state, and local authorities' data analysis can inform decisions? What are key decision support tools? How would greater communication about data and tools benefit expanded evidence building?**

Kathy Stack's recent paper, "Harnessing Data Analytics to Improve the Lives of Individuals and Families: A National Strategy" describes urgent national challenges related to the pandemic, economic recovery, and equity that call for strong collaboration between federal, state, and local governments. (https://www.dayoneproject.org/post/harnessing-data-analytics-to-improve-the-lives-of-individuals-and-families-a-national-data-strategy). The paper includes key questions that states and localities should be able to answer to improve the impact of federal programs, such as:
- **Need:** What are the needs of the various population groups who are eligible for services, and how are they different or the same?
- **Resource and service allocation:** Who is receiving services and benefits, and who is eligible but not receiving them? Are services and benefits reaching those who need them most?
- **Mix of services and benefits:** Is the mix of services and benefits appropriate and effective for the different populations served? Are services effectively coordinated across programs?
- **Equity:** Do our analytical methods and algorithms reinforce bias in policy, resource allocation, and other decision-making? What safeguards would prevent this?
- **Outcomes:** What outcomes are we achieving? How do they compare with expected levels of performance?
- **Comparing alternative approaches:** What alternative approaches have the greatest positive impact? Which are most cost-effective?
- **Operational efficiency:** Are operations being conducted in the most efficient way? What changes improve the customer experience while reducing costs?
- **Return on investment from upstream prevention:** What preventive measures avoid negative outcomes and downstream costs (e.g., actions to reduce homelessness or address social determinants of health)? Which would have the highest return on investment?
- **Error, fraud and abuse:** What individuals or entities are receiving funds they are not entitled to, based on data available through a different program?

COVID-Specific Examples:

- **High-risk groups:** For specific communities, what are the key characteristics of people most susceptible to COVID-19, including race/ethnicity, age, underlying health conditions, reliance on public transportation, housing status, and types of employment?
- **Effective interventions:** What approaches and interventions (e.g., contact tracing, registration upon entering a business, temporary housing for members of a COVID-affected household) have a measurable effect on the rate of COVID-spread, or factors that contribute to spread?
- **Economic impacts:** Are individuals and businesses that were eligible for emergency assistance, <u>and</u> in greatest need, receiving assistance?
- **Program integrity:** What individuals and entities are receiving assistance from multiple emergency programs, at least one of which they are not eligible for?

The paper lays out a five-part strategy for the federal government, working in partnership with state and local governments and outside experts, to create the enabling conditions for rapid modernization of data capacity to answer these and other questions. The key elements are:
- Establish a White House Data and Analytics Working Group, led by senior White House and OMB officials and supported by a task force, which includes state and local officials.
- Set new expectations for data use by state and local governments and provide funding and incentives through regulatory and administrative reforms. This could include allowing federal Medicaid funding to be used to build cross-program data and analytics capacity to improve outcomes for low-income populations.
- Provide technical assistance on key data-related issues, such as how to share data while protecting privacy, how to reduce reliance on costly vendor solutions that reinforce silos, and how to finance integrated data capacity by braiding and blending existing funding streams. (While there is currently legal authority for state and local governments to finance data infrastructure and analytics capacity with braided funding, the federal government has failed to provide clear guidance. Absent authoritative guidance, states and localities are reluctant to spend money on activities that auditors may question.)
- Build expertise using personnel exchanges, including by creating a network of academics serving as IPAs in federal agencies who can collaborate on cross-agency, intergovernmental evidence-building projects.
- Develop legislative proposals based on an analysis of federal, state, and local barriers and capacity gaps that cannot be solved through administrative action.

Other examples of how federal data can help inform state and local policy decisions emerged from a **Chapin Hall-Census data linkage project** launched in 2016 with support from the Arnold Foundation. A Chapin Hall solicitation received 45 proposals from states and local governments seeking to link their data to federal data using the Census data-linkage infrastructure. See https://www.chapinhall.org/wp-content/uploads/Admin-Data-for-the-Public-Good.pdf The Chapin Hall report describes in detail the six proposals that were selected as pilots and the implementation challenges that the projects encountered in setting up data-linkage processes. These insights may be highly relevant to the Advisory Committee's work.

Question 10: **What basic public data services are essential for a data service to address existing capacity gaps and needs? What infrastructure or incentives can the federal government create that locals and states cannot?**

The federal government holds rich, complete data sets that states and localities could better utilize to inform their policy decisions. One of the best examples is employment data held by IRS (annual income) and ACF's National Directory of New Hires (quarterly earnings.) These data can fill critical information gaps for states about people living in their state who work in another state, and people or living outside their state who work in their state.

Among the examples of incentives the federal government can create that states and localities cannot are:

- Federal grant programs can **require state and local grantees to devise plans for how they will use data, analytics and evaluation to strengthen results and to report on significant findings.** (This information could take the place of unnecessary and burdensome compliance reporting that is not helping grantees improve performance.)

- For financing, the federal government can (1) **clarify ways that existing funding streams can be used** for data and analytics capacity; and (2) **provide additional funding** using Medicaid and OMB waiver authorities to finance integrated data systems and analytics capacity under current law.

- Further, new appropriations from Congress for state systems and/or data capacity can require states (1) to create interoperable systems that can link data to other state and federal systems serving overlapping populations, and (2) to make de-identified data available for research, evaluation and statistical activities. If Congress provides new funding to states to modernize their UI systems, the Department of Labor should work with OMB and other federal agencies to strengthen and align incentives for states to integrate data from UI with data in other state-administered programs.

- Federal agencies can work with state and local agencies to **streamline and standardize data collections** so the data is more useful and burden is reduced. Developing common data standards with state and local governments – as the Education Department did for State Longitudinal Data Systems and HHS did for electronic health records – can dramatically improve the utility and quality of data, promote interoperability, and ultimately reduce administrative costs.

- Federal agencies can **allow state and local grantees to use the "Exceptions" provision (in section 200.102) of OMB government-wide grants guidance to develop alternative performance metrics** that utilize linked data to generate useful and reliable outcome measures. Grantees that can provide demographic characteristics of their program beneficiaries, and also authorize the use of linked data to measure outcomes and other key progress indicators, could be relieved from other reporting that is not required by statute. The employment scorecard example, highlighted in question 3, could be an initial focus for this streamlined approach.

Other examples of federal incentives are described in the national strategy paper described above (https://www.dayoneproject.org/post/harnessing-data-analytics-to-improve-the-lives-of-individuals-and-families-a-national-data-strategy).

The federal government can also devise creative, legally permissible approaches to develop analytical tools that help states and localities utilize federally held data. For example, the same methodology that IRS and the Education Department used to produce the College Scorecard could be adapted to measure employment outcomes in state and local grant programs and for federally funded training providers. De-identified data about participants in state and local programs could be merged at IRS with tax data to produce reliable employment outcome information at a very modest cost. Similar capacity could be built at the Administration on Children and Families using NDNH data on quarterly earnings.

Achieving Data Integrity

Comments for the Advisory Committee on Data for Evidence Building

Date: February 9, 2021
Electronic submission

The Advisory Committee on Data for Evidence Building represents a series of important and commendable efforts in support of the Foundations for Evidence-Base Policymaking Act of 2018, which in turn advances our nation's critical objective to promote the responsible usage, availability, and sharing of data assets for improved operations and decisions. As ardent supporters of both the legislation and the work that shaped it, we are honored for the opportunity to present our recommendations in response to the Department of Commerce Request for Comments.

Please find our responses to the Central Questions 1, 3, 4, 6, and 9 below, preserving the original numbering.

1. What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points they face in the evidence-based decision-making process.

The technological, organizational, and cultural systems needed as a foundation for evidence-based decision-making require Federal expenditures that represent a sizable investment of time, labor, and resources. Often, due to the substantial commitments and subsequent oversight, it takes considerable time for an organization to recognize that the tools and technology in service of ongoing operations are outdated. This creates multiple vulnerabilities, which leaves the entities open to significant risk across several domains:

1. Security: As software and tools age, exploitable weaknesses become increasingly evident, often leading organizations open to substantial but preventable security risks. Reliance on patches and updates are only sufficient if the legacy products are supported. Once they reach end-of-life, the vulnerabilities become more numerous and more difficult to correct, with the entirety of burden inherited by the organization.

2. Operational Readiness: Systemic approaches that are designed around specific technologies rely on the continued support and operation of those technologies, with greater problems incurred by the existence of dependencies in peripheral systems. The recent deprecation of tools such as Adobe Flash and Microsoft Silverlight may seem unimportant unless you are utilizing those tools for critical processes. If you have not replaced those systems, your processes will no longer function.

    There is an additional disadvantage posed by confinement to a specific vendor or suite of products. Doing so creates vulnerabilities such as propensity for price gouging, outsourcing of intellectual and technical capabilities, and other limitations of high proprietary technologies. For example, "Federal Agencies' Reliance on Outdated and Unsupported Information Technology: A Ticking Time Bomb," a 2016 Committee on Oversight and Reform hearing, emphasized the critical nature of moving on from legacy systems and legacy languages. The hearing mentioned that over 1,500 staff members were retained for the purposes of upholding maintaining the legacy languages COBOL (1,085) and Fortran (613) (*United States House Committee on Oversight and Government Reform, 2016.*) This clearly indicates both economic and technological compromise.

    From a talent onboarding and retainment standpoint, this also creates a barrier-to-entry as these languages have not been part of the curriculum in technical programs for years. In fact, even Turing award-winning computer scientist Edsger W. Dijstra wrote a letter to the *Communications of the Association for Computing Machinery (ACM)* in which he stated that, "The use of COBOL cripples the mind; its teaching should, therefore, be regarded as a criminal offence," and that, "FORTRAN —"the infantile disorder"—, by

now nearly 20 years old, is hopelessly inadequate for whatever computer application you have in mind today: it is now too clumsy, too risky, and too expensive to use." This was published in 1975. Dijstra is considered one of the most influential computer programmers, making critical contributions to the field and serving as the Schlumberger Centennial Chair in the Computer Science Department at the University of Texas at Austin.

3. User Acceptance: The success of Data Services relies upon the greater research community using the approach as the primary method for accessing evidence-based data. If the tools and technology utilized become outdated or fail to offer advanced features available via other methods, the approach will lose viability due to non-use.

Staying abreast of technological improvements in advance of the development of risk factors will naturally be critical to the success of the program. An inherent danger is that the owning organization will wait too long to recognize and affirm the requirement to upgrade or refresh their technology.

3. Which frameworks, policies, practices, or methods show promise in overcoming challenges experienced by governments in their evidence building?

Preventative system maintenance and fair metadata practices can build lawmakers confidence in implementing evidence-based data sharing. A structured and well-architected Data Services approach is required to successfully implement sharing of evidence-based data across the Federal research space. Recent and rapid advancements in associated technologies and methods have made such feats not only possible, but increasingly efficient, significantly expanding the capabilities and subsequent value of enterprise data management and analysis.

The irony, however, is that this same march of progress can also jeopardize the justification for the systems as they are at risk of being outpaced, marginalized, or rendered obsolete. Assessment is perceived as costly up front and therefore rarely maintained as a high priority. However, delays often lead to more expensive remediation or rushed decisions driven by urgent need rather than thoughtful improvement. Left unaddressed, future issues can compound into greater technical debt, reduced sustainability, and challenges that can quickly become insurmountable without disproportionate additional cost. Organizational culture has been framed as the foundation for any innovative technology to gain successful traction (*Harvard Business Review*, 2020).

Therefore, our additional recommendation is to establish procedures for regular and consistent technology assessment as an established practice to identify opportunities for improvement. This can be accomplished in several diverse ways, including adding this responsibility to an existing role or creating semi-regular personnel to complete these tasks. The key will be to put in place a

regular schedule to review existing and evolving needs, technology, and environment to identify any issues or deficiencies in both the current and future context, prompting a review of new opportunities for potential improvement.

4. The Commission on Evidence-Based Policymaking (See: www.cep.gov) recommended the creation of a National Secure Data Service (See Commission Report at www.cep.gov). Do you agree with this recommendation, and if so, what should be the essential features of a National Secure Data Service?

As a member of the Data Coalition, Rotunda Solutions strongly supports the assessment provided in their report *Modernizing U.S. Data Infrastructure: Design Consideration for Implementing a National Secure Data Service to Improve Statistics and Evidence Building*. Creation of a National Secure Data Service holds excellent value and aligns well with United States priorities to remain at the forefront of thought leadership, advancement, capability, and achievement in science and technology. Accordingly, we recommend four criteria for achieving data excellence: data integrity, data literacy, data accessibility, and data implementation. Each criterion provides concrete suggestions for how the Data Service can achieve excellence gleaned from experience in industry.

Data Integrity

- Authentication, Authorization & Accounting (AAA)
    - Data harnessed for policy support must be auditable. Authorized users should be able to see where the data came from, who performed any create, read, update, or delete (CRUD) operations on the data, and why.
- Hashing
    - To ensure that data has not been compromised, hashing algorithms should be used to verify its authenticity.
- Backups
    - In keeping with the 3-2-1 Principle, all data should have 3 copies, 2 on-site and 1 off-site.

Data Literacy

- Datasets used for creating policy should be accompanied with thorough explanations, including the tools, settings, and methods used to obtain the data. This ensures that the data can be replicated by another party. Reproducibility is a vital component of data integrity.
- It is crucial for policy makers to ensure the above, but data literacy is a responsibility that is shared, and not necessarily shouldered by the policy makers alone. Organizations with supportive infrastructures and well-defined roles can spread the responsibility across a mixture of those who have the positioning and ability to achieve and maintain a high level of data literacy and expertise. This ensures that expectations are reasonable without sacrificing intellectual capital.

- Several Commercial Off-the-Shelf (COTS) and Free and Open-Source (FOSS) software and hardware solutions exist for creating visualizations and summaries of data.
- Some to consider are included below:
  - Elastic Canvas: Apache backs Elastic Canvas.
  - Grafana
  - Hybrid Open-Source Software (HOSS)

Data Accessibility

- Current solutions have been partially implemented, such as Data.gov. However, such sites are merely collections of several other repositories from independent organizations. Some of these cannot be reached without proper access with the individual organization. An example of government site integration with data visualization tools that enable further data accessibility are Data.gov's integration with Plot.ly and CartoDB.
- Government organizations have variable methods of participation with the Data.gov repository. Some organizations may provide an up-to-date, accessible CSV files, or APIs (Application Programming Interfaces), while others may provide difficult to wrangle data in PDFs (Portable Document Formats), data that is rife with missing variables, lacking in variable clarity, and/or infrequently (or never) updated.

Data Implementation

- For any drafts of evidence-based policy, policy makers ought to provide a way for the authors of the evidence & the public (who have access to the data) to provide comments & concerns before it is completed.

Information Governance

- Though the terms are often used interchangeably, there is value in drawing a distinction between data and information. They are certainly interrelated: Data is seen as a raw precursor, while information is data that has been organized and given context. One of the primary purposes of the Data Services program is to provide improved access to evidence-based data to allow more users to generate better information through analysis.
- The significant risk that users will misuse, mishandle, or misinterpret data creates a vulnerability that datasets will be used to draw invalid and unjustified information. This is especially true in the current climate with the proliferation of social media and click-bait headlines.
  - We have seen recent examples of this occurring during the release of data related to the COVID-19 pandemic. Raw data related to cases, hospitalizations, and deaths were made available to the public early in the spread of the virus, but with little guidance regarding the way the data was being collected, the context in which the data should be assessed, and the proper way to relate that data to other data sources.

This led to many avoidable erroneous conclusions, misleading articles, and conspiracy theory videos. Additionally, once these examples of faulty information based upon the data were being presented to the public, the managers of the COVID data were slow to respond to or clarify the issues.

- This illustrates the need for Information Governance. Like Data Governance, Information Governance involves the management of both the development of and value derived from information based upon the data. In this case, Information Governance would take two forms – developmental and responsive.

- Developmental information governance would involve the management of how information is derived from the evidence-based data. Controlling how users create information out of raw data across all data sources spanning the breadth of the research space would not only be impractical, but it would also impose unwarranted restrictions on scientific inquiry. Certainly, no one would want a governance organization to dictate and limit how data can be utilized to gain insights. Guidelines can be provided to end users accessing the data so that necessary context is not overlooked.
  - This can be implemented in the form of guidelines documents tied to Service Level Agreements and can be incorporated with usage of metadata from a metadata repository, which would be the source for the contextual information. Outlining guidelines up front will provide structure to manage the information outputs and provide a foundation to enable iterative methods of ensuring authenticity and integrity provide a means to ensure their authenticity and integrity. They can also be used to help ensure that resultant information conforms to the same legal and regulatory vigor as the original data.

- Responsive information governance would involve the establishment of the means to identify and respond to circumstances where data is used improperly. It is inevitable that, if data is being made available to a broad spectrum of researchers to drive new and varied lines of inquiry, that at some point the data will be misused. And it is even more certain that if the data becomes publicly available, news organizations, politicians, and other influencers will be quick to draw conclusions, even if incorrect, and spread those to large audiences. It behooves any governmental body tasked with the responsibility of providing access to data to also be tasked with promptly responding to the incorrect usage of that data.
  - This can be accomplished by establishing an Information Governance Council consisting of both representative(s) with knowledge and understanding of the data, as well as experts in areas such as governmental compliance, research practices, and public relations. Policy and process documents in support of Information Governance can also be generated and published.

- Information Governance can provide both protection against the misuse of evidence-based data as well as the framework which will help researchers and other users from wasted efforts due to a lack of understanding of the source data.

6. If created, how should a data service be structured to best facilitate (1) research and development of secure data access and confidentiality technologies and methods, (2) and agency adoption of those technologies and techniques?

Applying a Data Services approach to facilitate use and analysis of evidence-based data will allow for the flexibility to rapidly provide a wide array of data to researchers with minimal development and infrastructure. However, even if data is not hosted in a central repository the Data Service will still need to provide sufficient information about available datasets for users to assess if a particular dataset merits additional study. Managing the vast array of data through the Data Services will be challenging. Keeping track of all the various data elements being collected by researchers and understanding how that data interrelates is crucial to being able to properly understand and use the data. The recommendation in Part Four is therefore to develop and maintain a metadata repository.

Metadata is defined as "data about data." Without reliable metadata, it will be impossible to know what data is available, where it originates, how it moves through systems, who has access to it, and what it means for the data to be high quality. Moreover, it is critical for metadata standards to be shared across organizations that will be involved in data sharing.

We recommend the creation of a central repository to collect the metadata for all the sources connected to the Data Services. This will address several issues: Data Awareness, Data Quality, Technical Data, Security, and Context.

1. Data Awareness: A metadata catalog will store information about the definitions and usage of data elements. This information will be invaluable for researchers looking to discover added sources of data and finding specific data entities which will be useful.
2. Data Quality: Supplying data quality rules will aid Data Stewards in ensuring that data quality still is consistent when being accessed by such a wide variety of users.
3. Technical Data: Full information about the technical data, such as the physical database table and column names, column properties, and models, will allow users to have necessary information to connect to the source systems and properly and more efficiently code ETL (Extract Transform Load) processes.
4. Security: Understanding the security rules and allowable access will enable stewards and users to understand the restrictions that apply to the source data.

5. Context: Metadata can capture all other pertinent information that will supply context for stewards to manage the data and for users to access it, including data lineage, update schedules, value constraints and known issues.

Failure to address the need for comprehensive metadata to support the Data Services approach will open the program to several significant risks. Allowing a wide spectrum of users to connect to many different evidence-based data sources could quickly lead to a complete failure of data management leading to a Data Service that is unused despite significant investments because users do not understand what is being provided well enough to trust available data is accurate, reliable, or timely. Additionally, without a full catalog of metadata to provide context and reference information to guide users, there is a danger that users will not accept the approach as a valid means of accessing reference data.

9. What are the key problems and use cases where collaborative work between federal, state, and local authorities' data analysis can inform decisions? What are key decision support tools? How would greater communication about data and tools benefit expanded evidence building? Infrastructure for Meeting Public and Evidence Building Needs –10. What basic public data services are essential for a data service to address existing capacity gaps and needs? What infrastructure or incentives can the federal government create that locals and states cannot?

The creation of a federal data service provides a unique opportunity to understand and expand the use of data for decision making at the state, local, and Federal level. Use-statistics for the supply and demand of data outside existing data silos could be leveraged to map the network of data providers, datasets, and data users (both researchers and lawmakers). This network map would offer a wealth of information about data curation and consumption, providing guidance for questions posed by the report from The Data Foundation, including:

- How should a data service prioritize initial project approvals?
- How can a data service ensure continued collaboration for researchers and agencies?
- What processes should be considered to enable data discovery and data integration?
- How should user feedback be routinely incorporated?
- What are the most efficient processes for improving data quality in government datasets once users identify potential issues?

Basic implementation:

1. Uniquely identify datasets, dataset providers and data users
2. Identify and track keywords for datasets, dataset providers, and data users.
3. Capture dataset download/search instances.
4. Track which organizations/individuals downloaded/searched for which datasets.

5. Track which datasets are used (downloaded or searched for) together.
6. Use this information to build a network map connecting data providers, datasets, and data users.

Possible analyses from network map use statistics:

1. Identification of priority datasets through user-demand assessment
   a. Metrics
   b. Measurement - assessing demand can inform data exploration efforts by identifying areas/types of datasets that are likely to be high value for data users.
   c. User demand can be used to identify which datasets should be priority for initial implementation and which merit further development.
2. Aligning organizational requirements, project proposals, and project outcomes.
   a. Identifying common data pathways (pairing between data providers and data users)
   b. Identifying areas for potential collaboration between data users and providers.
   c. Providing avenues for feedback regarding data collection modifications or quality improvements to increase dataset utility.
3. Clustering datasets by similarity
   a. Clustering datasets by similarity could help identify duplicative collection efforts.
   b. Clustering datasets commonly used/searched together could provide the foundation for a dataset recommender engine.
   c. Clustering busy datasets or dataset keywords downloaded/searched for helps identify organizations that may have interest in forming user groups.

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Data Ethics Embodied in Practice
A Framework for Synthesizing and Applying Federal Data Ethics Principles

ROTΠNDA
S O L U T I O N S

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Electronic submission

1. Introduction

A data ethics framework is a critical component of a responsible data ecosystem, addressing subjects that include privacy, transparency, trust, ownership, governance, consent, fair use, bias, disinformation, and weaponization, as applied to techniques and standards for storage, management, and applications. Rotunda Solutions applauds the Advisory Committee on Data for Evidence Building for their leadership and foresight in addressing the topics in its examination of evidence-based policymaking. Providing clear data ethics principles independent of prescriptive methods is a challenge for which our team is uniquely suited. We are familiar with the technical and theoretical principles that are behind each stage of the data management pipeline and can advise broadly while providing clarity for unique issues that arise during individual case studies.

The following comments seek to recommend practices and frameworks that show promise in establishing a Data Ethics Framework to improve vital data protections, identify and mitigate key risks, and facilitate responsible and cohesive data sharing across pressing needs at the Federal, state, and local level.

Our approach, properly applied, will satisfy three essential ethical principles for data:

1. Respect for Persons: People are treated with respect for dignity and autonomy.

2. Beneficence: First, do not harm; Second, maximize benefits; Third, minimize harms.

3. Justice: People are treated fairly and equitably.

2. Proposal

Foremost, we propose researching and identifying commonalities in requirements, risks, and usage models to inform a structuring of standards, to be deemed Data Ethics Embodied in Practice (DEEP). The intention of DEEP is to create shared standards for groups that require individual implementation strategies while continually embodying Federal data ethics principles. Strategically developed common standards reduce reliance on over-governance while enabling the flexibility required for innovation and effective application across a wide variety of stakeholders and contexts.

Furthermore, data is a continually evolving entity, and the priorities of Federal entities shift over time. It is necessary to avoid overly specific technical language and instead focus on the ethical principles that should drive decision-making. The intent is to standardize to a *minimum level* and avoid over-governance. Common standards are critically beneficial, and we recognize that organizations need to dynamically grow and develop individual implementations unique to their context. This is a dynamic and continuous process which can be guided by best practices and recommendations to ensure cohesiveness and quality, while acknowledging that the profiles, needs, and unique priorities of Federal entities greatly and change over time.

We are prepared to make recommendations for data handling, management, and application practices based upon the principles of (1) Respect for Persons, (2) Beneficence, and (3) Justice. Despite the proliferation of automatizing capacities within data engineering and data science, humans still play a significant role from study design to legislation action following data-driven changes in policy. Data is no longer a silo, but instead proliferates through all departments and aspects of government and society.

As our societies grow increasingly diverse, so must the change-makers that serve them. Diversity of talent has myriad benefits, including ensuring that multiple perspectives and outcomes are considered during data management risk management evaluations. The culture of a department matters. Well-skilled scientists and engineers from diverse socioeconomic, gender, racial, religious, ability, and cultural backgrounds are integral to success. Studies have shown that companies with higher levels of ethnic and gender diversity financially outperform those with lower levels (McKinsey 2020). Throughout history, the government has not always acted in the best interests of minority populations. This elevates the importance of data ethics, an area where leaders can address the infrastructure changes that serve elevate trust and build progress. From data collection to data applications, building a foundation to earn public is critical. To make these changes effectively, it is important to incorporate the historical perspectives of people for whom science and technology may have wronged throughout United States history.

Moreover, high profile data breaches have led to widespread distrust in public discourse. In a 2016 survey of 1,040 adults, the Pew Research Foundation found that 28 percent of people surveyed had no confidence whatsoever that the Federal Government could protect their personal

data (Smith, 2017). Making reparations for these disruptions in the foundational tenants of civic trust requires a foundational shift in mentality prior to the development of technical adaptations, which will help ensure that adaptations remain relevant, obtain compliance, and demonstrate a shared ethos.

The Federal Government has struggled to retain talent, as mentioned in the Virtual Public Plenary Conference for the National Security Commission on Artificial Intelligence (NSCAI) in January of 2021. Moreover, the Federal Government lags industry in a variety of diversity metrics. Respect, Beneficence and Justice can be served by ensuring fair representation of leadership in organizations that manage and disseminate Federal data.

3. Case Studies

Below, we provide a case study that is illustrative of the importance of underlying data ethics frameworks with common standards that can proliferate across agencies. This example exemplifies the importance of contrasting the ideologies and applications across multiple agencies. There needs to be flexibility and freedom to evolve standards based upon guidelines. Use-cases will be unique, and so a Federal data ethics framework is not necessarily prescriptive, but it is a common groundwork for Federal government to build upon. This enables transference.

FEDERAL AGENCY DATA PRIORITIES		
DEPARTMENT	Department of Defense	Department of Education
DATA UTILIZATION	High Consumer, Low Provider	High Provider
SECURITY PRIORITY	National Security	Child Privacy
CHALLENGE?	Expectations of public and Congressional accountability and transparency often compete with protecting information from both a competitive and security standpoint. There is a struggle to balance internal and external risks and protections.	Collecting data and responsibly reporting accurate data from a multitude of different schools and districts, with lack of standardization of data, formats, and procedures; frequency of errors; and large variance in compliance and timeliness, while addressing privacy, bias, applicability in context, and execution gaps
ETHOS	The DoD (Department of Defense) asserts that FOIA will be upheld in both letter and spirit from a data security standpoint. The security of a weapons system is a priority from a national security standpoint, which informs the development of security standards.	The Department of Education endeavors to maintain anonymity at the individual level, but is required to publish larger demographic, resourcing, and performance data for both public and regulatory consumption.
READINESS	The Departments of Defense and Education have vastly different states of readiness, operational tempos, accountability, stakeholders, and levels of maturity in distinct aspects of data operations, including general understanding, organizational adoption, data collection, enterprise data management, data analysis, data ethics, and end usage. Where one may serve its needs with very sophisticated and robust structures within enclaves, while acknowledging limited coordination, another may have benefit from more shallow but widespread and integrated interagency sharing. The realities are very different, and priorities of greatest value to one context may not be shared in another.	

As one can deduce from the above example, identical data standards cannot be enacted and adopted across entire Federal government. We propose that we identify and classify a representative subpopulation of Federal groups to consider in the development of a Federal policy. It is important to consider multiple stakeholder groups in the development of a Federal policy.

4. Best Practices

To develop a thorough set of best practices that can apply across multiple agencies, we must address the following questions:

- How do their missions and their need for protections inform their data usage behavior and priorities?
- Who are the stakeholder groups? What are their associations and value statements? What are they trying to achieve?
  - Within these stakeholder populations, what is the need/justification to access the data? What considerations exist? How do roles which range from disparate to overlapping and interconnected raise unique ethical questions and scenarios?
    - i. Examples of "need to know" vs "FOUO" [document designation, not classification] vs clearance vs chain of command:
    - ii. Ethical quandaries that arise in DoD, for instance:
      1. https://resources.data.gov/assets/documents/fds-data-ethics-framework.pdf
      Are these unique to DoD (Department of Defense) or is there an analog in other orgs? Is there a common standard that helps us to synthesize a definitive answer to these problems?
      2. If not, are there guidelines that can be universally prescribed for the approach?
- What are the risks that need to be considered when merging datasets from groups with discordant data standards?
  - I.e., What happens if HHS (Health and Human Services) (Health and Human Services) data, which fiercely prioritizes privacy, is combined with IRS data, Census data, and law enforcement data? In aggregate, this may reveal insights that fundamentally violate the intent of the component data sources.
  - Is there an argument for prioritization of conflicting organizational ethical standards by need? By mission? By association?

- How should server prioritization operate? What are the ethical considerations in prioritizing access?
- How can we manage threats to data integrity?
    - It is not always brute force hacking that we must contend with; it can be minor technical changes that proliferate into eventual loss of integrity in multiple datasets.
    - Do we define preservation of data integrity as an ethical imperative in and of itself?
    - Is there an ethical obligation on the part of the organization that serves up the data?
    - Is the burden on the user/consumer of the data to do their due diligence to gauge data trustworthiness?

Identification of the commonalities across groups can help mitigate over-governance and over-regulation. Data ethics is not a process that can occur in a silo. Just as technological development is an iterative process, data ethics must occur concurrently with technical developments. Below, we propose four major components that comprise the data lifecycle process and outline key components to inform corresponding ethics principles.

5. Key Concepts

The ethics of handling data are complex, but can be successfully addressed by focusing on two key concepts:

i. Impact on people: Because data stores personal data and is used to make decisions that impact the lives of people, it is important to carefully manage its quality and reliability.

ii. Potential for misuse: Misusing data can have detrimental effects on people, programs, and organizations, creating a moral imperative to prevent it.

6. Data Ethics Embodied in Practice (DEEP): Four Points Overview

Data ethics involves a thorough interrogation of the data lifecycle, which involves collection, storage, management, and applications. As data begets more data, it is necessary to continually revisit compliance with ethics standards. For example, a dataset that begins as child enrollment in a new STEM academy may be classified as anonymized when viewed alone. However, if a new dataset is compiled based on the previous study, and attempts to reconcile income classifications by zip code, an even finer granularity of demographics, or enrollment and success metrics, a portion of those protections may be jeopardized. This could risk exposing a child's identity, regardless of the intent or policies of each component data set in isolation.

The pace of technological advancements is itself a risk. It is common knowledge that personal identifiers such as names are no longer necessary for accurate identification. As two decades ago, it was postulated that over half of the U.S. population were at risk of being identified uniquely by only location, gender, and date-of-birth (Sweeney L., 2000). Since that time, we have only seen a decrease in data privacy and an exponential increase in new sources of high-risk data, including efflux of smartphone utilization. and the products of commercial and data mining efforts.

Thus, the problem is not only difficult to handle, but also, a challenge to anticipate or diagnose, especially when data is merged in increasingly complex ways from multiple, independently-managed, uncoordinated, and dynamic sources. This is true even when said systems faithfully follow basic standards. Continuous, vigilant, and informed diligence is necessary to maintain sustained and effective guidance, more so responsible usage. As a member of the Data Coalition, this is particularly important to the values of our firm. We agree with the recommendations

provided in their report *Modernizing U.S. Data Infrastructure: Design Consideration for Implementing a National Secure Data Service to Improve Statistics and Evidence Building*, and understand that such a system shoulders numerous responsibilities, many of which fall under the consideration of Data Ethics and can be addressed by the due diligence we recommend in this document.

The Data Ethics Tenets as defined by the Federal Data Ethics team were instated to support users of Federal data to make ethical and accountable decisions throughout the life cycle of data acquisition, processing, dissemination, and usage, storage, and disposal.

The Federal Data Strategy 2020 Action Plan asserted that Federal leaders should promote a data ethics-driven culture by showing strong leadership by example. In brief, the Data Ethics Tenets are: 1 - Uphold applicable statutes, regulations, professional practices, and ethical standards. Existing laws reflect and reinforce ethics. 2 - Respect the public, individuals, and communities. 3 - Respect privacy and confidentiality. Data activities involving individual privacy should align with the Fair Information Practice Principles (FIPPs). 4 - Act with honesty, integrity, and humility. 5 - Hold oneself and others accountable. 6 - Promote transparency. 7 - Stay informed of developments in the fields of data management and data science.

In the report, it is specified that the Federal Data Ethics Framework is a "living" resource and to be updated by the CDO (Chief Data Officer) Council and ICSP every 24 months (about 2 years). Our data ethics principles are intended to support the seven tenants promoted by the Federal Data Strategy 2020 Action Plan and intended to assist in translating theory into practice.

Point One: Collection

i. Corresponding Federal Data Ethics Tenants*: 2, 3, 5, 6

ii. Collection should be informed by a clear set of principles that are directly linked to data usage. This is wise from a personal identifiable information (PII) security standpoint and minimizes risks associated with a worst-case scenario data breach.

iii. Make a clear delineation between data collected for grant-review purposes and data collected for statistical research purposes.

iv. Stakeholder groups should be clearly identified, and priorities defined within the initial data management plan. To mitigate complications arising from competing priorities, use-cases should be reviewed by leadership across organizations.

Point Two: Storage

i. Corresponding Federal Data Ethics Tenants: 1, 2, 3, 5

ii. Principle of least permissions should be designated in an initial systems diagram. Engineers, I.T. experts, developers and data scientists should meet regularly with leadership to ensure that systems permissions are closely aligned with mission goals. Systems diagrams should be continually refreshed, as necessary.

iii. Sever prioritization should be allocated on a priority-basis as designated by leadership from multiple government organizations to assist with the reconciling of potential competing priorities.

iv. Threats to data integrity can be managed through a continual review of dataset access and security classification changes that may occur upon the compounding of datapoints.

Point Three: Management

    i.   Corresponding Federal Data Ethics Tenants: 1, 2, 3, 4, 5

   ii.   Datasets should be reviewed individually and in tandem for security compliance. Continual reviews are necessary to avoid breaches of personal information that could result upon the specific combination of datapoints.

  iii.   Security classifications should be closely aligned to dataset classification to promote collaboration and open-source data whenever possible.

  iv.   Define appropriate and accessible formats to promote public use when possible. Open data vs accessible data vs consumable data vs understandable data. Define the Federal obligation to its populace in this regard.

Point Four: Applications

    i.   Corresponding Federal Data Ethics Tenants: 5, 6, 7

   ii.   Applications should be continually reviewed for alignment with original use-cases to promote public trust and professional accountability.

  iii.   Opportunities for novel applications should be identified through interdisciplinary collaborative meetings to occur to at regular intervals.

  iv.   Consider hosting an unclassified briefing on YouTube or other public forum that would enable live streaming and public interaction.

As defined in the Federal Data Ethics report, benefits of the Data Ethics framework include: Consistency, Better Data-Driven Decisions, Risk Mitigation, Increased Transparency, Consideration of Wider Perspectives, and Improved Public Trust.

The Federal Data Strategy (FDS) describes a 10–year vision for how the Federal Government will accelerate the use of data to deliver on mission, serve the public, and steward resources while protecting security, privacy, and confidentiality. The strategy was developed to guide Federal data management and use via a mission statement, ten operating principles, and a set of 40 best practices to guide agencies in leveraging the value of Federal and federally sponsored data. Principles designated by the FDS were as follows: Ethical Governance, Conscious Design, and Learning Culture. Practices designated by the FDS fall under the following three categories: (1) Building a Culture that Values Data and Promotes Public Use, (2) Governing, Managing and Protecting Data, and (3) Promoting Efficient and Appropriate Data Use. The creation of guidelines to promote interagency adherence to the wide array of theoretical and practical guidance provided by government entities is critical to ensure that security and ethics are continually calibrated to ensure safety while promoting growth. Simplified, real-world guidelines are critical to promoting compliance and continual engagement with ethics standards as data sets and organizational priorities evolve.

At its core, establishing, adopting, and embodying a strong data ethics framework is about building trust. The organizational, end user, and public trust necessary for the success of an evidence-based system extends beyond just the veracity and reliability of the data itself. We must endeavor to build faith in the associated technologies, sources, systems, owners, managers, leaders, agendas, and safeguards. By supporting initiatives that seek shared standards, transparency, and fundamental understanding of both the data and the human relationship to data, we are taking steps in the right direction.

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*All tenants are intended to be upheld within DEEP. Specific tenants were underscored for relevance to the subtopic.

Docket Number: EAB-2021-0001

Comments for the Advisory Committee on Data for Evidence Building:

State Chief Data Officers Recommendations for Federal Data Sharing Improvements

We are the 27 [state Chief Data Officers](#) representing approximately 72 percent of the United States population. We represent some of the largest populous states like California, Texas, and Florida and smaller states such as Wyoming, Vermont, and Alaska.

State governments are charged with implementing Medicaid, SNAP, TANF, amounting to many of the largest federal programs. COVID-19 has put unprecedented strain on state governments. States face significant challenges in collecting, integrating, and reporting COVID-related data, and these challenges are just a microcosm of the issues states face everyday.

Without improvements to federal data sharing infrastructure, states' ability to recover effectively will be hampered. Federal agencies must deliver big, bold solutions that allow states to more effectively leverage data to deliver services, and raise the bar for managing and protecting citizens' data.

While legislation like the OPEN Government Data Act of 2017 and Foundations for Evidence-based Policymaking Act of 2018 have set national precedents for data-driven governments, states still struggle to navigate the use of federal data and data about federal programs due to the complexity of the existing system of regulatory and administrative procedures. We have laid out a proposed course of action that would reduce states' barriers to data use. Privacy and data protection are also priorities for our governments, so our proposal includes recommendations to preserve or improve existing data privacy protections.

1. **Simplify federal agencies' legal and regulatory frameworks to allow state and local governments to more easily share and report data.**

To simplify data sharing and reporting, the Administration should:

- Streamline and harmonize complicated and often contradictory federal laws to allow for more data sharing across the state-administered federal programs. States need to share data across subject matter domains (education, health, financial, etc) to enable coordinated and efficient service delivery;
- Provide legal clarity for data sharing across multiple domains and domain-specific bodies of law. While policy-specific guidance (regarding FERPA, HIPAA, HMIS, CJIS, etc.) is helpful, the lack of legal clarity around data-sharing across these domains leads to different legal interpretations across states. The Administration for Children & Families released a helpful [Toolkit](#) for sharing data across six programs, and more tools like this are necessary;
- 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;
- Provide model data use agreements (DUAs) that take into account this enhanced legal clarity. Model DUA terms, which build on the prior two recommendations, could accelerate adoption among agencies;
- Streamline and harmonize redundant data reporting requirements for state agencies receiving federal funding that reduce duplicate reporting efforts, focus on outcomes, shift toward more trust-based models, and maintain both effectiveness and efficiency;
- Establish a National Data Commissioner, similar to [Australia's](#), to promote greater use of public sector data and support simpler data sharing frameworks;
- Explore the utility of a single data protection law for the public sector, leveraging insights from implementation of the EU's GDPR.

2. **Provide funding and guidance to strengthen use of data in policy-making.**

To strengthen data use, the Administration should:

- Provide policy directives that directly fund and mandate states to incubate and grow centers of excellence for data and evidence-based policy and improved service delivery, including use of randomized control trials, behavioral economics, and advanced analytics and machine learning;
- Authorize and incent states to leverage a small percentage of each federal grant to build the capacity and establish the infrastructure necessary to share, integrate, and analyze data related to federal programs;

- Fund model implementations and centers for integrated, longitudinal data systems, including regional models, in contrast to state-centric funding models;
- Establish the [National Secure Data Service](#), as recommended by the Commission for Evidence Based Policymaking, prioritize access for state governments.

3. Coordinate with state CDOs

To improve coordination, the Administration should:

- Coordinate federal data acquisitions, particularly those involving remote sensing data, with state CDOs and Geographic Information Officers.
- Enhance coordination between state and federal CDOs by:
    - Conducting regular roundtables of the CDOs of major federal agencies and state CDOs;
    - Coordinating with state CDOs prior to initiating data-centric initiatives at the federal level, including those sponsored by the White House;
    - Collaboratively identifying projects or use cases that would benefit from state and federal data.

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Comments for the Advisory Committee on Data for Evidence Building
Docket Number: EAB-2021-0001

Central Questions—

1. What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points they face in the evidence-based decision-making process.

Data silo-ing is a major impediment to effective evidence-based policy. Sharing data allows insights that may not be possible with data sets in isolation. Related is the ability to: uncover what data is available; understand what is in a data set, and; how this information relates to other data sets.

2. What are examples of high-impact data uses for evidence-based policy making that successfully effected change, reduced costs, or improved the welfare of citizens?

3. Which frameworks, policies, practices, or methods show promise in overcoming challenges experienced by governments in their evidence building?

The Evidence Act's comprehensive data catalog can help overcome some of the issues in Question 1. It allows the discoverability of data. However, the interpretation of the requirements needs to consider value-add to existing data sets. Simply repeating an enhanced version of M-13-13 requirements is not sufficient. An important point is how agencies need to fulfill:

> *§3511 (a)(2)(A)(i) A description of the data asset, including all variable names and definitions.*

It is suggested that this be a bold and transformative effort, even if it requires significant investments of time, effort, and coordination. Rather than a free text field of limited value or cross-government consistency, this can be the beginning of a formalized way of tagging and defining variables. This should leverage existing schemas/efforts/standards where possible. NIST could work toward developing a framework with stakeholder engagement. There can be case studies of existing or new efforts that show the positive impacts. This can additionally support the requirements from the PRA.

4. The Commission on Evidence-Based Policymaking (See: *www.cep.gov*) recommended the creation of a National Secure Data Service (See Commission Report at *www.cep.gov*). Do you agree with this recommendation, and if so, what should be the essential features of a National Secure Data Service?

We enthusiastically endorse this recommendation. Beyond providing a service to access data, it should also provide a means to analyze the data. This ability should run the spectrum of user needs: from creating basic graphical results, to full-blown data science analysis. It should provide federal employees with a meaningful avenue to use fundamental tools like Python and PostgreSQL without the need to deal with internal roadblocks at their own agencies. Beyond opening such basic capabilities to the federal workforce, it eases the sharing of data, analysis, and results by providing a standard platform for data analysis. Additionally, attracting data science talent is made more difficult if the tools available to researchers are not industry standard. This is a ubiquitous issue observed across multiple federal agencies. The NSDS effort should be an agent of transformation beyond just making data accessible.

5. How can federal agencies protect individual and organizational privacy when using data for evidence building? Recommend specific actions the Office of Management and Budget and/or other federal agencies can take when using data for evidence building, as well as suggested changes to federal laws, policies, and procedures.

This could be a service provided by the NSDS when the results of any analysis will be released. Many agencies do not have the in-house expertise to effectively develop, use or understand newer protection methods like formal privacy. Beyond that, the full impact of decisions to employ a given privacy protection method may not be understood when being chosen. The NSDS, in addition to being a provider of privacy protection methods, can be a provider of institutional knowledge about the advantages and disadvantages of different methods.

While the mosaic effect is a concern, it is difficult to see how this can be accounted for without some central "bookkeeping" facility. For example, if there is going to be a privacy protection budget, who controls the budget? How is it determined what the budget is? How will the federal government keep track of the use of that budget? How many agencies are adding to the total budget? Having a central provider of data can be a first step to addressing this complicated situation.

Secure Data Access—

6. If created, how should a data service be structured to best facilitate (1) research and development of secure data access and confidentiality technologies and methods, (2) and agency adoption of those technologies and techniques?

This is covered in part by are comments on Questions 4 and 5. If organizations and federal employees are made aware of the ability to access and analyze data on a modern platform with modern analytic capabilities in place, the burden of promoting this to agencies will be reduced. This needs to be a cultural change effort. Agency leadership should be informed of the advantages of the data service analytics capabilities. Individuals need to be made aware of the service's availability, and provided the necessary training and support, as required by FDS Action 4. Crucially, mid-level management needs to be engaged and brought onboard. They are key stakeholders in turning the desire for adoption into actual adoption.

7. Government agencies have argued that secure data access has value because it (1) improves service delivery, (2) improves efficiency (lowers costs), (3) produces metrics for performance measurement, and (4) produces new learnings/insights from the data. Which of these propositions do you agree holds value and why? Do you have examples that demonstrate these benefits? Do you have other examples of the value of secure data access?

Under the CARES Act (§1107(b)(2)(A)), MBDA was awarded funds to, in part, provide for the "education, training, and advising of covered small business concerns and their employees on accessing and applying for resources provided by the Agency and other Federal resources relating to access to capital and business resiliency". What are the results of this? To effectively address this, MBDA would ideally have been able to follow the impacts of their CARES Act funded efforts with other federal agencies. An in-place NSDS would have made this effort significantly easier and/or feasible.

Data Services to Federal, State, Local Agencies and the Public—

8. What are the most pressing data needs of state and local decision makers and how would making data accessible from federal agencies help meet those needs? To share data, what guarantees do data owners (or data controllers) need regarding privacy, data stewardship, and retention?

9. What are the key problems and use cases where collaborative work between federal, state, and local authorities' data analysis can inform decisions? What are key decision support tools? How would greater communication about data and tools benefit expanded evidence building?

Infrastructure for Meeting Public and Evidence Building Needs—

10. What basic public data services are essential for a data service to address existing capacity gaps and needs? What infrastructure or incentives can the federal government create that locals and states cannot?

February 9, 2021

Mr. Lucas Hitt
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Dear Advisory Committee Members,

We are three Indigenous professors who work in partnership with Indigenous Peoples, communities, tribal nations or villages within the United States and in other countries. Our experience and expertise span the disciplines of sociology, demography, geography, public health, data policy and ethics, economics, and political science. We have collected, surveyed and analyzed data from various sources such as Indigenous communities, tribal nations, and government agencies. As a result, we have extensive experience in the use of data for evidence-based policy-making for Indigenous Peoples.

We offer the following comments and responses to the Federal Register request for comments.

CENTRAL QUESTIONS—
1. What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points they face in the evidence-based decision-making process.

Response: Tribal governments, Alaska Native villages and Native Hawaiians and Pacific Islanders often are not well represented in longitudinal datasets. There is also the issue of different definitions of these Indigenous populations, which can inhibit comparative analyses across datasets. This spans the entire spectrum from education, health, income and earnings and wealth, and social outcomes. Therefore, standard empirical and statistical methods used in the evaluation of labor market, education, or health programs or interventions are not possible. Thus, these communities go understudied. Very few data sets oversample these populations in order to create reasonably-sized longitudinal data sets. Most data sets such as the National Longitudinal Study of Youth contain approximately 100 observations of American Indians or Alaska Native young people. The California Health Interview Study, however, has conducted oversamples for the American Indians and Alaska Native population. The limiting factor is often funding and/or contact information for this relatively small population. The sharing of administrative data for a sampling frame from existing federal agencies may help to alleviate this issue in the future.

2. What are examples of high-impact data uses for evidence-based policy making that successfully effected change, reduced costs, or improved the welfare of citizens?

Response: In Indigenous nations and communities, there have been very few analyses and evaluations made with long-term data. There's a profound need for moving beyond cross-sectional U.S. Census data that provide exceptional data for a specific time period, but is not designed for providing evidence for changes over time.

3. Which frameworks, policies, practices, or methods show promise in overcoming challenges experienced by governments in their evidence building?

Response: Increasingly the linking of administrative data is appealing as it does not overly burden respondents with having to respond to surveys. It may also capture the universe of program recipients as well and will not suffer from response or sampling bias. Linking across administrative data sets also provides opportunities for evaluating outcomes and policies in multiple areas or disciplines.

4. The Commission on Evidence-Based Policymaking (See: www.cep.gov) recommended the creation of a National Secure Data Service (See Commission Report at www.cep.gov). Do you agree with this recommendation, and if so, what should be the essential features of a National Secure Data Service?

Response: Yes, this is an important step forward. We do caution that, especially with regard to Indigenous Peoples and tribal nation data, there should be special care given to include Indigenous policymakers and academics in this decision process. Historically, these populations have been left out of these discussions and decision-making. As a result, there has been reluctance and opposition to data collection at various levels.

5. How can federal agencies protect individual and organizational privacy when using data for evidence building? Recommend specific actions the Office of Management and Budget and/or other federal agencies can take when using data for evidence building, as well as suggested changes to federal laws, policies, and procedures.

SECURE DATA ACCESS—
6. If created, how should a data service be structured to best facilitate (1) research and development of secure data access and confidentiality technologies and methods, (2) and agency adoption of those technologies and techniques?

Response: There are existing rules protecting the use of confidential-use data for research and evaluation purposes. Title 13 and Title 26 exist to protect US Census and IRS data; similar types of protection should be put into place for other administrative data sets and for linked data sets as well. The US Census Bureau currently facilitates research and has a Disclosure Review Board to approve the release of data and research output. Similar DRBs could be established at other agencies or between agencies when data is linked. Data should be made available at Federal Statistical Research Data Centers for authorized individuals who have special sworn status and who have been given approval for their research and data use.

7. Government agencies have argued that secure data access has value because it (1) improves service delivery, (2) improves efficiency (lowers costs), (3) produces metrics for performance measurement, and (4) produces new learnings/insights from the data. Which of these propositions do you agree holds value and why? Do you have examples that demonstrate these benefits? Do you have other examples of the value of secure data access?

Response: We believe that there are tremendous opportunities for learning about tribal government and federal government service provision through the use of secure data access. Potential areas would be service delivery on tribal trust lands, in the Indian Health Service and Bureau of Indian Education. In general, we agree that all four propositions exist for tribal governments and Indigenous Peoples. An example of how secure data access may provide new learnings and insights from data is given below:

Using the Longitudinal Business Database (LBD) and the Integrated Longitudinal Business Database (ILBD) and the Economic Census, (Akee, Mykerezi and Todd, CES Working Paper 20-38, 2020) found that establishments located on American Indian reservations were more likely to survey the Great Recession era than those located in adjacent counties off the reservation. This insight provides new evidence of the resiliency of American Indian reservations and governments. In the absence of this administrative data and the geographic markers which allow for identifying reservation location, this novel insight would have been impossible to assess in publicly-available data sets.

DATA SERVICES TO FEDERAL, STATE, LOCAL AGENCIES AND THE PUBLIC—
8. What are the most pressing data needs of state and local decision makers and how would making data accessible from federal agencies help meet those needs? To share data, what guarantees do data owners (or data controllers) need regarding privacy, data stewardship, and retention?

Response: In tribal and Indigenous communities, there is often very little information on current employment, income and housing issues and trends. Data is difficult or quite costly to collect on their own with little to no staff for such activities. Thus, timely data that reflects the current state of affairs and emerging issues would be extremely useful in these communities. As the pandemic has made quite evident, it is imperative to also have access to vital statistics data to monitor and identify health risks and trends.

In terms of the guarantees that should be included, data users must adhere to principles of Indigenous data governance such as the CARE principles. These principles, developed in consultation with the US Indigenous Data Sovereignty Network (https://usindigenousdata.org/), provide a foundation for data producers, stewards, and publishers to affirm Indigenous rights to self-determination through appropriate data use, archiving, and stewardship.

9. What are the key problems and use cases where collaborative work between federal, state, and local authorities' data analysis can inform decisions? What are key decision support tools? How would greater communication about data and tools benefit expanded evidence building?

Response: In particular, there are large benefits in understanding how the education system benefits or harms Indigenous children. There are often overlapping jurisdictions depending upon where a child lives and the type of school he or she attends. In tribal communities, a student may attend a tribally-controlled institution and then transfer to an off-reservation county school in later years. These school records are not often linked across these different administrative systems. Finally, a student may enter a state-level post-secondary institution or a private institution. The National Student Clearinghouse collects data for degree completion, but they do not often link data at the individual level to these prior records. As a result, we do not have longitudinal data for this population of children. Therefore, evaluating the differences across school systems and districts for Indigenous Peoples is often severely lacking.

INFRASTRUCTURE FOR MEETING PUBLIC AND EVIDENCE BUILDING NEEDS—
10. What basic public data services are essential for a data service to address existing capacity gaps and needs? What infrastructure or incentives can the federal government create that locals and states cannot?

Response: In particular, the federal government may authorize the linking of federal data sets that often cover the Indigenous population where no such data (or identifiers) exist in state-level data. These identifiers could be linked across relevant data sets. For example, in states with no income taxes, federal

IRS data may be used to identify and calculate income and earnings data for Indigenous Peoples; thus, state-level administrative data either would not exist or not provide the appropriate information. Second, linking of federal and state level data may expand the options for analysis that would allow for the identifying program effects from both federal and state programs in the realms of health, education and employment. Another area for consideration is the adoption of a tribal data standard across all levels of government so that data on tribal citizens are collected in consistent ways that align with tribal sovereignty.

Sincerely,

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Research Associate, NBER
Non-Resident Fellow, Brookings Institution

Desi Rodriguez-Lonebear
Assistant Professor of Sociology, UCLA
Co-Founder, US Indigenous Data Sovereignty Network

Stephanie Russo Carroll
Assistant Professor of Public Health, University of Arizona
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Comments for the Advisory Committee on Data for Evidence Building

Docket ID: EAB-2021-0001

February 5, 2020

Please consider my responses to the questions below. I began my career using restricted data from the U.S. Census and have long used these types of data, both in the U.S. and in Great Britain for research and evaluation purposes. I have served as a Direction of the Kentucky Center for Business and Economic Research (CBER) and am currently the Executive Director of the Kentucky Research Data Center (KRDC, a part of the FSRDC system). My experiences with CBER provide insights into working with state and local policy makers. While my research record and service with KRDC provide insights on working with restricted data.

1. What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points they face in the evidence-based decision-making process.

As former director of the Center for Business and Economic Research at the University of Kentucky, I have worked with state and local governments to address important policy questions. While sometimes good public use data are available. For example, Tax Increment Financing (TIF) is used to support public/private partnerships. Designated TIF zones are often smaller than census tracts. Information on worker earnings and firms are often unavailable for public use at this small level of geography. A number of data sources, including the Longitudinal Business Database do contain these details, but are difficult to obtain access to. While KY Stats has worked to provide some data for the state of Kentucky, and I applaud those efforts, evaluation of TIF and other similar policies would be facilitated by national level data, increasing sample sizes and decreasing local idiosyncrasies. Access to these type data would enhance the ability of researchers working with policy makers.

Another major and related issue is the cooperation across different government agencies regarding access to their data. As current director of the Kentucky Research Data Center, I note that while many agencies allow their data to be used within the FSRDC system, significant differences in access requirements, approaches and costs exist. For example, while Census allows researchers within the RDC's access to the data free of additional charge (beyond any charge collected by the RDC's). However, some agencies, such as NCHS charge an additional fee, which is often quite steep. In my view, federal statistical agencies should be providing these data to users without charge. Tax money has been used to collect the data, analysis of the data is crucial to its benefit to society. This limits the benefit of a public good.

In contrast, Census requires that any project using these data benefit Census. The Census benefits are limited to findings that support improvement in Census products. However, a clear benefit to society is the research itself. This limitation derives from Title 13, and needs to be addressed.

see blue.

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While Census has worked to link many of their data sets both to other Census products and to other data from Federal Statistical Agencies, other agencies are less forthcoming and willing to allow linkages. Ideally, in the formation of an NSDS, data from myriad agencies would be available with common linking technology. The Federal Statistical Research Data Center (FSRDC or RDC) system provides a secure and safe research environment where such linking can occur, and has important disclosure safeguards in place

- Obtaining access to micro level data, especially at sub national and sub state levels is difficult.
- Linkages across different data sources are difficult to obtain.
- Inter and even intra agency cooperation varies dramatically.

2. What are examples of high-impact data uses for evidence-based policy making that successfully effected change, reduced costs, or improved the welfare of citizens?

As CBER Director I have used public use Census data to examine commuting patterns in the Cincinatti Metropolitan area which informed public debate about the Brent Spence Bridge. I've also studied TIF zones in the Louisville area and exporting firms from Kentucky. I have also used restricted data to evaluate an new job training program in Louisville. All of these projects have influenced both the public debate about policy and in some cases the policy itself.

As a research, my work has examined how non-response in the CPS impacts the measurement of poverty and income volatility. These projects have both impacted how census and other agencies contend with survey non-response and how poverty is measured nationally.

3. Which frameworks, policies, practices, or methods show promise in overcoming challenges experienced by governments in their evidence building?

Positives: The FSRDC system provides a framework, already developed, where restricted data can be accessed. It is my opinion that the NSDS should work carefully with the FSRDC system to expand and improve access both to researchers – who are often key in providing the kind of evaluations necessary – but with state and local governments and other groups who may also benefit from access.

In Kentucky, KYSTATs has begun to link state records in education as well as employment and public program usage. However, this is limited, and additional data could be brought to bear. It is important that this not be a state by state type structure nor should the cost burden fall on states. An RDC could provide a framework to link state data as well.

- The FSRDC System provides a framework already in place
- Engagement with state and local data collection will improve this

Significant Concerns: While I believe the FSRDC system provides an initial framework, it is important to recognize that an NSDS and a national system of access through FSRDC's have the danger of becoming an unfunded mandate. While FSRDC's are initially funded by the NSF, operational funding is provided by host institutions and consortium members. The operational funding includes paying Census for both

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disclosure review and the Census Administrator. The KRDC budget is approximately $200,000 per year, much of which constitutes payments to Census. In order to support this, the University of Kentucky, the Ohio State University and Indiana University contribute. We also charge fees to users outside these three members of the consortium. Neither I, nor the University of Kentucky, receive any compensation for the time I spend as an Executive Director. This is another cost shifted to the RDC's.

Because the FSRDC system is funded through these types of arrangements, building a system of access on FSRDC system poses substantial problems. First, and foremost, it may lead to a system of access that is decidedly unequal. It is highly unlikely that smaller colleges and universities, such as HBCU's, will ever host RDC's or even join consortiums. In my experience, even medium sized regional universities balk at sharing even part of the cost of the RDCs. Additionally, because funding at RDC's is always challenging, this presents significant problems for maintaining the system. Finding appropriate hosts is difficult, and maintaining funding is a challenge. This will mean some regions, such as western states, will have poor access.

I will also point out that the Census Bureau does not currently have sufficient funds to support a larger RDC system. The Kentucky Research Data Center has two partner institutions who have been waiting five years for their branch facilities to open. The main reason for the delay is that Census does not have the personnel or budget to keep up with the current expansion. In order to address access issues, a much broader expansion will be needed. Further infrastructure and human resources for disclosure (which is frequently overburdened) and administration of the sites will be paramount.

- The risk that using FSRDC system creates and unfunded mandate.
- Additional funds are necessary at the RDC unit level to support this
- Additional funds are necessary to allow broad access
- Additional funds are necessary at the Census level to provide the infrastructure including disclosure review, census administrators, and IT environment.

4. The Commission on Evidence-Based Policymaking (See: www.cep.gov) recommended the creation of a National Secure Data Service (See Commission Report at www.cep.gov). Do you agree with this recommendation, and if so, what should be the essential features of a National Secure Data Service?

I would urge the Committee to consider strong recommendations that:

(1) The NSDS be formed with an appropriate budget to:
    a. Fund Census Administrators throughout the FSRDC system and for an expansion of that system.
    b. Fund appropriate personnel for disclosure review
    c. Fund the costs of expansion (branches/new RDC's and equipment and personnel).
(2) The NSDS work with FSRDC Executive Directors to identify additional needs for RDC's including branches, additional Data Centers.
(3) Federal Statistical Agencies reduce or eliminate user fees for access to data or provide funding mechanisms through NSF or other appropriate mechanisms.
(4) Mechanisms for linkages across all data be mandated and facilitated.

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(5) Partnerships with state and local governments be established to include state and local data within the FSRDC system.

5. How can federal agencies protect individual and organizational privacy when using data for evidence building? Recommend specific actions the Office of Management and Budget and/or other federal agencies can take when using data for evidence building, as well as suggested changes to federal laws, policies, and procedures.

While Title 13 and Title 26 provide a solid basis, the interpretation of these laws needs to be clarified. In particular there appear to be some who believe any "probability" that an individual could be identified must be driven to zero. However, this fails to take proper cost benefit into account and taken at it's extreme, leads to poor estimation (noise injection and "differential privacy"). Indeed, the recent breach of federal IT could be interpreted as implying that no records should ever exist (since they cannot be kept confidential with 100% certainty). While disclosure risk is certainly important, there are benefits that must be balanced. Further, the cost of disclosure should be taken into account as well. Title 13 and title 26 do not allow for this and must be amended.

Currently the Census interprets title 13 to imply that use of restricted data must benefit the Census mission only. The important benefits of the substantive research should be acknowledged and included in the cost benefit analysis of access to restricted data.

Researchers have long balanced risk and benefit (consider human subjects research protocols). With the data community the protocol of "Safe People, Safe Projects, Safe Settings, Safe Data, and Safe Outputs" has long been followed, and provided access to restricted data for many. This is easily expanded and easily implemented, and the FSRDC system is well versed in this.

- Title 13 and Title 26 need to be clarified to acknowledge that some risk of disclosure will always exist, risk and benefit need to be weighed.
- Benefit not only to Census mission or to a specific agency mission.
- Protocols exists already for ensuring data safety.

Secure Data Access—

6. If created, how should a data service be structured to best facilitate (1) research and development of secure data access and confidentiality technologies and methods, (2) and agency adoption of those technologies and techniques?

Safe People, Safe Projects, Safe Settings, Safe Data, and Safe Outputs. This protocol is internationally known and well documented. The Personal Identification Encryption followed by Census and others is well designed. These issues have long been addressed and there is little need to re-invent the wheel.

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7. Government agencies have argued that secure data access has value because it (1) improves service delivery, (2) improves efficiency (lowers costs), (3) produces metrics for performance measurement, and (4) produces new learnings/insights from the data. Which of these propositions do you agree holds value and why? Do you have examples that demonstrate these benefits? Do you have other examples of the value of secure data access?

I believe all hold true for different projects. I have the most experience with (4). Research I've been involved in using restricted data has established important relationships between Food Stamp Usage and assets, allowing an understanding of how changing the asset limit would change program take up and predict costs. I have investigated how survey non-response impacts estimates of poverty, economic inequality, racial wage gaps and gender wage gaps.

Data Services to Federal, State, Local Agencies and the Public—

8. What are the most pressing data needs of state and local decision makers and how would making data accessible from federal agencies help meet those needs? To share data, what guarantees do data owners (or data controllers) need regarding privacy, data stewardship, and retention?

Small geography data on firm and employee relationships. Federal agencies have myriad data from both surveys and from administrative records that, if linked, would provide deep understanding of how local policies impact economic development.

Safe People, Safe Projects, Safe Settings, Safe Data, and Safe Outputs protocols.

9. What are the key problems and use cases where collaborative work between federal, state, and local authorities' data analysis can inform decisions? What are key decision support tools? How would greater communication about data and tools benefit expanded evidence building?

Small geography data on firm and employee relationships. Federal agencies have myriad data from both surveys and from administrative records that, if linked, would provide deep understanding of how local policies impact economic development.

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Infrastructure for Meeting Public and Evidence Building Needs—

10. What basic public data services are essential for a data service to address existing capacity gaps and needs? What infrastructure or incentives can the federal government create that locals and states cannot?

I would urge the Committee to consider strong recommendations that:

(1) The NSDS be formed with an appropriate budget to:
   a. Fund Census Administrators throughout the FSRDC system and for an expansion of that system.
   b. Fund appropriate personnel for disclosure review
   c. Fund the costs of expansion (branches/new RDC's and equipment and personnel).
(2) The NSDS work with FSRDC Executive Directors to identify additional needs for RDC's including branches, additional Data Centers.
(3) Federal Statistical Agencies reduce or eliminate user fees for access to data or provide funding mechanisms through NSF or other appropriate mechansims.
(4) Mechanisms for linkages across all data be mandated and facilitated.
(5) Partnerships with state and local governments be established to include state and local data within the FSRDC system.

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Response to Request for Comments for the Advisory Committee on Data for Evidence Building
Docket EAB-2021-0001

On behalf of the U.S. Department of Transportation (USDOT), Office of the Secretary of Transportation (OST), Office of the Chief Information Officer (OCIO), the Chief Data Officer submits these responses to the subject request for information from the Advisory Committee on Data for Evidence Building.

These responses are narrowly drawn to discuss the Department's experiences and point of view through the implementation and delivery of its Secure Data Commons shared service. For more information about the Secure Data Commons, please visit https://www.transportation.gov/data/secure.

Any questions about this response can be directed to the DOT Chief Data Officer, Daniel Morgan at Daniel.Morgan@dot.gov.

Central Questions –

1.   What are the main challenges faced by national, state/provincial, or local governments that are trying to build a basis for evidence-based policy? Briefly describe the bottlenecks and pain-points they face in the evidence-based decision-making process.

USDOT Response:
A key challenge facing the transportation industry and the Department's research portfolio is an ever-increasing array of data sources and types involved in the research process. As the transportation field is impacted by digital transformation, so too is the Department's research. To ensure that the data from the Department's research activities is available to support evidence-based policy, the Secure Data Commons was developed. The Secure Data Commons addresses some key challenges:

- First, the Secure Data Commons provides for a shared service to address data management needs throughout the research lifecycle. Data management broadly will play an increasingly prominent role in support the evidence-based decision making process. Chief Data Officers' (CDO) roles, responsibility, and authorities may need to evolve to match the increased prominence of data within policy. Within the Federal government, the Foundations for Evidence-Based Policymaking Act provides for broad CDO authorities, which are foundational to influencing the data management needs of both research and policymaking. Nevertheless, data management needs are not always well understood, cost are not always accounted for in designing initiatives, and CDOs at the state or local government level may not be as clearly empowered. Without the clear authority of the CDO role, it is hard for the any organization to cultivate data-driven competencies.
- Second, the policymaking process is does not consistently approach the need to assess/or evaluate the impact of the policy. It can be difficult to for governments to evaluate the impact of a policy if relevant information is not collected/gathered as part the research or other evidence-building activity that supports policy making process.

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Lack of data planning may result in insufficient granular data to support the evaluation of a particular policy. Evaluation criteria (measures) should be considered and defined during the policy making process, and data management planning should be incorporated into the policymaking process, as it has been in the research process.

- Third, data culture and a data-savvy workforce are roadblocks that must be overcome to build evidence-based policy. Organizations need to enhance staff expertise in the evidence-based policymaking process from the senior leadership to the staff level.
- Fourth, agencies need access to data analysis platforms and software to exercise enhanced expertise. Building evidence based on data relies on data engineering, analysis, and visualization software to which agencies should have access, but many currently do not. Such access may also be fragmented, inhibiting collaboration opportunities and interdisciplinary work. When investments are made, such investments seem to be made for a particular research subject area (e.g., Cancer Data Commons), and the individual research projects bear the cost of their own data management needs. Shared platforms can also more readily enable secondary data analyses. Likewise, data discoverability across organizations continues to be a challenge. Breaking down silos and implementing standards across shared services can address the question of how external users may effectively weigh in on agency's investments in the underpinnings of evidence-based policy (e.g. data, analytical approaches/tools, etc).
- Fifth, timely sharing of data and analysis approaches across agencies and levels of government (fed/state/local/tribal) can be a roadblock. There is often hesitancy in sharing data or analysis approaches while they are being developed or in early evaluation, this is especially true for data/analysis that feeds into regulation. In addition to leadership hesitancy, often there are insufficient processes or resources for effectively engaging key stakeholder/partners or expanding the diversity of the stakeholders. The advantage of sharing early and providing opportunities for meaningful feedback and revisions is multifold: improved data sources and analytical approaches, greater "buy in" and engagement by key stakeholders in the overall regulatory outcome, and greater diversity in perspectives that feed into a more inclusive analyses and ultimately more inclusive policy.

2.   What are examples of high-impact data uses for evidence-based policy making that successfully effected change, reduced costs, or improved the welfare of citizens?

USDOT Response:
The USDOT Secure Data Commons (SDC) houses data sets used for innovative research in automation, safety, and other topics in transportation. Among the data sets is the National Waze Data Archive. USDOT established an agreement with Waze to archive nationwide traffic alerts and jam data on the secure, cloud-based platform through the Waze for Cities program. These data are aggregated to protect privacy, ensuring individual users and trips cannot be deduced from the Waze data provided to USDOT. A number of projects have leveraged the Waze data in

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SDC, including partnerships with the Tennessee Highway Patrol[1] and the City of Bellevue, Washington[2], as case studies to explore State and local applications of the Waze data to improve roadway safety in the near term and in planning for a Vision Zero future.

For Tennessee Highway Patrol, this work aimed to better allocate trooper time to the places and times where their presence can have the greatest impact in reducing crashes, and in responding to crashes that may occur.

For the City of Bellevue, this work aimed to identify roadway segments where crash risk is highest, complimenting police-reported crashes. This will help the city plan interventions to meet their Vision Zero goals.

This work has shown that crowd-sourced data such as from Waze can enhance other roadway data to illuminate safety risk patterns and inform decision making.

3. Which frameworks, policies, practices, or methods show promise in overcoming challenges experienced by governments in their evidence building?

USDOT Response:
Scientific processes, where feasible and appropriate, should be applied in the governments' evidence building process. Similar to scientific integrity policies, if any data, processes and guidance used for evidence building should subject to the evidence building integrity polices as well.

Such processes must be supported by sound data management programs and training in areas such as data documentation, data standards, and even an understanding of evaluation methodologies. Shared understanding of data management and evaluation must be driven vertically, across all levels of government.

Finally, scientific and data management processes are nothing if the government enters into contracts or financial assistance agreements that limit access to or otherwise do not provide for the data needed to support evidence-based policymaking. Driving best practices for transparency, open data, analysis and evaluation, and the like into the contracts of awards and other agreements will facilitate the availability of evidence for policymaking.

4. The Commission on Evidence-Based Policymaking (See: www.cep.gov) recommended the creation of a National Secure Data Service (See Commission Report at www.cep.gov). Do you agree with this recommendation, and if so, what should be the essential features of a National Secure Data Service?

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[1] https://www.transportation.gov/sites/dot.gov/files/docs/subdoc/836/2019-tn-highway-patrol-case-study-brief.pdf
[2] https://www.transportation.gov/sites/dot.gov/files/docs/subdoc/831/2019-bellevue-case-study-brief.pdf

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USDOT Response:

Agree. At the basic level, a National Secure Data Service should have the following features:
- Robust and standardized application programming interface (API) for data exchange
- Easy to search Data Catalog for all the data in the national secure data service
- Robust and comprehensive Data Governance process
- User Role control framework
- Investment in outreach and training. The success of a National Secure Data Service would require active use and engagement by agencies across the federal government (and potentially across other levels of government)

The USDOT Secure Data Commons could act as an implementation to model a larger National Secure Data Service, or alternatively, could act as one component in a more federated approach across agencies.

5.   How can federal agencies protect individual and organizational privacy when using data for evidence building? Recommend specific actions the Office of Management and Budget and/or other federal agencies can take when using data for evidence building, as well as suggested changes to federal laws, policies, and procedures.

USDOT Response:
- Collect the minimum required personally identifiable information.
- Remove explicit identifiers and applying a variety of statistical disclosure limitation methods to the dataset before the data is released to the public
- Restrict access and use administrative procedures and technology to restrict who can access the dataset and what kinds of analyses can be done with the data to reduce the risk of disclosure, such as license agreements.
- Establish necessary processes and methodology of quantifying and controlling the risk of privacy loss as federal statistical agencies move forward with linking datasets from various sources.
- Provide clarity for how a potential National Secure Data Service would be Freedom of Information Act (FOIA) compliant and how to communicate what that level of protection would mean for external stakeholders who are interested in protecting confidential business information (CBI) or personally identifiable information (PII).

Secure Data Access –

6.   If created, how should a data service be structured to best facilitate (1) research and development of secure data access and confidentiality technologies and methods, (2) and agency adoption of those technologies and techniques?

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USDOT Response:
- Access controlled at level of individual data sets
- Collaboration across projects possible
- Robust and comprehensive Data Governance process
- Data providers have the level of control they need to be comfortable sharing data
- Computational resources available within the data service with a scalable architecture
- Controlled export of data products
- Clearly defined data services and data retention plan
- Well defined memorandum of understanding between the service providers and the service users.
- Cost estimates associated with using these data services
- Open source technology

7.   Government agencies have argued that secure data access has value because it (1) improves service delivery, (2) improves efficiency (lowers costs), (3) produces metrics for performance measurement, and (4) produces new learnings/insights from the data. Which of these propositions do you agree holds value and why? Do you have examples that demonstrate these benefits? Do you have other examples of the value of secure data access?

USDOT Response:

Secure data platforms such as the USDOT Secure Data Commons facilitate sharing of data at a level of detail, volume, and velocity that otherwise would not be possible. For example, the SDC provides access to crowdsourced roadway incident data from Waze which is nationwide, refreshed frequently, and with high spatial resolution. At the outset of the COVID-19 global pandemic, secure access to these data supported a rapid development and deployment of a system to track changes in roadway safety and congestion with respect to pre-pandemic baselines. This work now contributes to weekly updates to USDOT metrics for monitoring transportation demand. The Waze indicators track the relative change in weekly traffic Jam and Crash alerts for all U.S. metropolitan areas compared to the previous week and to the same week in 2019 or 2020.

Waze would not provide such detailed data, across the whole US, with this frequency of updating, without some assurance that the data would be stewarded well / access would be controlled.

Data Services to Federal, State, Local Agencies and the Public –

8.   What are the most pressing data needs of state and local decision makers and how would making data accessible from federal agencies help meet those needs? To share data, what guarantees do data owners (or data controllers) need regarding privacy, data

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Office of the Secretary of Transportation
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stewardship, and retention?

USDOT Response:
No response.

9.   What are the key problems and use cases where collaborative work between federal, state, and local authorities' data analysis can inform decisions? What are key decision support tools? How would greater communication about data and tools benefit expanded evidence building?

USDOT response:
The USDOT's SDC use cases (question #7) illustrated great promise of collaborative work between federal, state, and local authorities' data analysis and statistics can help federal and local governments on national and local level to monitor and evaluate the impact of national or local government policies, allow for more timely and granular indicators to support the policy making of the of local, national and federal.

Infrastructure for Meeting Public and Evidence Building Needs –

10.   What basic public data services are essential for a data service to address existing capacity gaps and needs? What infrastructure or incentives can the federal government create that locals and states cannot?

USDOT Response:
No response.

KATE BROWN
GOVERNOR OF OREGON
CHAIR

BRAD LITTLE
GOVERNOR OF IDAHO
VICE CHAIR

JAMES D. OGSBURY
EXECUTIVE DIRECTOR

WESTERN GOVERNORS' ASSOCIATION

January 14, 2021

Advisory Committee on Data for Evidence Building
Office of the Under Secretary for Economic Affairs
U.S. Department of Commerce
4600 Silver Hill Road
Washington, D.C. 20233

Re: Docket ID No. 2020-27489, Comments for the Advisory Committee on Data for Evidence Building

Dear Members of the Advisory Committee on Data for Evidence Building:

The Western Governors' Association (WGA) submits the following comments to the Advisory Committee on Data for Evidence Building (ACDEB) in response to the December 15, 2020 Federal Register request for comment (85 Fed. Reg. 81179, Dec. 15, 2020).

Statement of Interest

WGA is an independent organization representing the Governors of the 22 westernmost states and territories. The Association is an instrument of the Governors for bipartisan policy development, information sharing, and collective action on issues of critical importance to the western United States. In WGA Policy Resolution 2021-02, *Utilizing State Data in Federal Decision Making* (attached), Western Governors recognize the critical role state data serves in the implementation of federal programs and urges federal agencies to look to states and state agencies as partners – rather than as ordinary stakeholders – with respect to the collection, stewardship, analysis, and use of data to inform federal decision-making processes.

Western Governors' Recommendations to the ACDEB

The Foundations for Evidence-Based Policymaking Act of 2018 (Act) expressly directs federal agencies to consult with state and local governments in the implementation of various provisions of the Act, including the development of agency learning agendas (5 U.S.C. § 312(c)). A December 2019 Report by the U.S. Government Accountability Office, "Evidence-Based Policymaking: Selected Agencies Coordinate Activities but Could Enhance Collaboration," indicates that several agencies have not followed consultation directives in their early implementation of the Act.

Western Governors recognize that state and federal agencies increasingly rely on quantitative and qualitative data to inform evidence-based policymaking, improve service delivery, more effectively manage resources, improve regulatory enforcement, and more accurately measure program performance and effectiveness. Western Governors recommend that the ACDEB develop and provide recommendations to the Director of the Office of Management and Budget to issue guidance directing federal agencies to:

- Engage with states and state officials as partners – rather than as ordinary stakeholders – in the implementation of the Act and its various programs.

- Develop and adopt clear and accountable processes to consult state and local governments on a government-to-government basis in the implementation of the Act. OMB guidance should also provide standards by which such consultation efforts can be appropriately documented and reported.

- Recognize the existence and limitations of state privacy and data stewardship laws, regulations, and policies and then work with states to develop strategies that encourage more effective state-federal data sharing while appropriately protecting data according to state laws.

- Ensure that state and local partners have access to timely and reliable federal datasets for purposes of informing state and local decision-making processes.

- Develop guidelines, in consultation with state and local governments, for intergovernmental data-sharing agreements and other protocols that include commitments to fundamental privacy and data stewardship principles like purpose specification and data minimization.

- Work with state and local partners to develop uniform data standards, where appropriate, to maximize data quality and facilitate intergovernmental data use, access, sharing, and interoperability.

WGA submits these remarks through the public notice and comment process for administrative recordkeeping purposes. The Governors, however, maintain that this process is an insufficient channel for state-federal communication on federal actions that may affect state authority or administrative activity. Western Governors strongly urge you to engage in early, meaningful, substantive, and ongoing consultation with states in advance of any such decisions or related public processes. Such consultation will result in more effective, efficient, and resilient federal policy.

Respectfully,
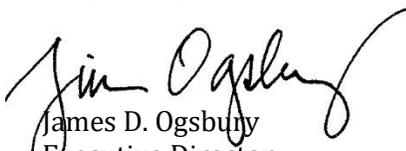
James D. Ogsbury
Executive Director

Attachment

Policy Resolution 2021-02

Utilizing State Data in Federal Decision Making

A.   BACKGROUND

1.   State and federal agencies increasingly rely on quantitative and qualitative data to inform evidence-based policymaking, improve service delivery, more effectively manage resources, improve regulatory enforcement, and more accurately measure program performance and effectiveness.

2.   States serve a critical function as a primary sources and stewards of economic, social, geospatial, scientific, technical, and other datasets that support a wide array of federal agencies and programs. State agencies often have the best available science, expertise, and other institutional data resources for purposes of federal decision-making processes.

3.   States are both sovereignties and the primary administrators of numerous federal administrative and regulatory programs under a system of cooperative federalism, which distinguishes them from other non-federal sources of data.

4.   State agencies also rely on timely access to current and accurate federal datasets to inform their own decision-making processes, develop more effective policy, improve service delivery and public communication, and to administer federally-delegated administrative programs.

5.   In addition to federal laws and regulations, state agencies operate under their own privacy and data stewardship laws, regulations, and policies that protect personal and confidential information from public disclosure or other inappropriate use or disclosure. These protections help establish public trust that ultimately improves government effectiveness.

6.   Public access to datasets that serve as the basis for federal agency actions promotes transparency and accountability in the decision-making process. Nevertheless, blanket requirements to make publicly available all data considered by federal agencies – particularly if this data consists of raw data provided by states – may infringe upon states' statutory imperatives to protect personally identifiable and otherwise sensitive information. It may also infringe upon fundamental privacy and data stewardship principles like purpose specification and data minimization. Even where there is no state legal barrier to disclosure of raw data, state agencies may maintain significant reservations about the public release of raw data.

7.   The 2019 Federal Data Strategy directs federal agencies to "[e]ffectively, routinely, transparently, and appropriately use data in policy, planning, and operations to guide decision-making [and] share the data and analyses behind those decisions." Additionally, agencies are directed to "[f]acilitate data sharing between state, local, and tribal governments and the Federal Government, where relevant and appropriate and with

proper protections, particularly for programs that are federally funded and locally administered, to enable richer analyses for more informed decision-making."

8.   Improvements in intergovernmental data sharing, stewardship, integration, protection, and utilization will require robust federal investments in a modern data infrastructure, technology, and training.

B.   GOVERNORS' POLICY STATEMENT

1.   State data serves a critical role in the successful implementation of a variety of federal programs and in federal agencies' fulfillment of their statutory missions and directives.

2.   Subject to state laws and other requirements for data protection and transparency, federal agencies should be required to incorporate state and local data and expertise into their analysis and decision-making processes. This data should include geospatial, scientific, technical, economic, social, and other information relevant to issues the agency is trying to address.

3.   Congress and the Executive Branch should look to states and state agencies as partners – rather than ordinary stakeholders – in the collection, stewardship, analysis, and use of data to inform federal decision-making processes. Federal agencies should recognize the existence and limitations of state privacy and data stewardship laws, regulations, and policies and work with states to develop strategies that encourage effective state-federal data sharing while appropriately protecting data according to state law.

4.   State data – particularly non-aggregated raw data – is subject to differing levels of protection under various state laws, regulations, and policies. Western Governors encourage Congress and federal agencies to recognize the limitations on complete transparency of state data in federal decision making and to work with states to identify ways in which protected data can inform federal decision-making processes without conflicting with applicable state laws, regulations, or policies.

5.   Federal agencies should consult with states – on a government-to-government basis – in the development and implementation of policies, programs, and strategies to more effectively and consistently incorporate state data into federal decision making, including implementation of applicable federal statutes and programs, as well as the Federal Data Strategy and development of annual Federal Data Strategy Action Plans.

6.   Federal agencies should also consult with states to ensure that state and local partners have access to timely and reliable federal datasets for purposes of informing state and local decision-making processes.

7.   Congress and the Executive Branch should support, and work with state toward, the modernization of our nation's data infrastructure and intergovernmental data-sharing and analysis capabilities. Data infrastructure should be based on best practices for data stewardship and must properly protect personal and confidential information in accordance with state and federal law. Federal agencies should consult with states to develop guidelines for intergovernmental data-sharing agreements and other protocols that include commitments to fundamental privacy and data stewardship principles like purpose specification and data minimization.

8.   Federal agencies should work with state and local partners to develop uniform data standards, where appropriate, to maximize data quality and facilitate intergovernmental data use, access, sharing, and interoperability.

9.   Western Governors support congressional efforts to broaden statutory exemptions under the Freedom of Information Act to protect personally identifiable and sensitive state-shared data from disclosure.

10.   Western Governors urge the Executive Branch to develop uniform privacy and data stewardship policies based on best practices and uniform interpretations of federal privacy and data stewardship laws, regulations, policies, and other directives applicable to data received from states, as well as other non-federal sources.

C.   **GOVERNORS' MANAGEMENT DIRECTIVE**

1.   The Governors direct WGA staff to work with congressional committees of jurisdiction, the Executive Branch, and other entities, where appropriate, to achieve the objectives of this resolution.

2.   Furthermore, the Governors direct WGA staff to consult with the Staff Advisory Council regarding its efforts to realize the objectives of this resolution and to keep the Governors apprised of its progress in this regard.

This resolution will expire in December 2023. Western Governors enact new policy resolutions and amend existing resolutions on a semiannual basis. Please consult http://www.westgov.org/resolutions for the most current copy of a resolution and a list of all current WGA policy resolutions.