



THE CENTER FOR  
**OPEN DATA ENTERPRISE**

***Roundtable on Leveraging Data as a Strategic Asset***

**KEY TAKEAWAYS**

*This report summarizes key takeaways from the Roundtable on Leveraging Data as a Strategic Asset, which was co-hosted by the Executive Office of the President [Office and Management and Budget](#) and the [Center for Open Data Enterprise](#) in May 2018.*

## **BACKGROUND**

The [President's Management Agenda](#) (PMA), released in March 2018, presents “a long term vision for modernizing the Federal Government in key areas that will improve the ability of agencies to deliver mission outcomes, provide excellent service, and effectively steward taxpayer dollars on behalf of the American people.” As part of its focus on mission, service, and stewardship, the PMA outlines the importance of creating a Federal Data Strategy and infrastructure for the future. The Federal Data Strategy will include four key components:

- (1) Enterprise Data Governance.** Set priorities for managing government data as a strategic asset, including establishing data policies, specifying roles and responsibilities for data privacy, security, and confidentiality protection, and monitoring compliance with standards and policies throughout the information lifecycle.
- (2) Access, Use, and Augmentation.** Develop policies and procedures that enable stakeholders to effectively and efficiently access and use data assets.
- (3) Decision-Making and Accountability.** Improve the use of data assets for decision-making and accountability for the Federal Government, including both internal and external uses.
- (4) Commercialization, Innovation, and Public Use.** Facilitate the use of Federal Government data assets by external stakeholders at the forefront of making government data accessible and useful through commercial ventures, innovation, or for other public uses.

Developing and implementing a Federal Data Strategy will take time, and will involve experts and thought leaders from across the Federal Government, private industry, and research institutions. The Administration has established the [Leveraging Data as a Strategic Asset Cross-Agency Priority \(CAP\) Goal](#) to drive sustainable progress in this area.

## ROUNDTABLE OVERVIEW

Building on the momentum of the President’s Management Agenda and the CAP Goal, the Executive Office of the President [Office and Management and Budget \(OMB\)](#) and the [Center for Open Data Enterprise \(CODE\)](#) co-hosted the Roundtable on Leveraging Data as a Strategic Asset in May 2018. The goals of the Roundtable were to “identify challenges and successes using federal data to deliver on mission, serve customers, and steward resources” and “determine factors that drive successful data initiatives.”

The Roundtable was convened to help improve the management and use of federal data so that public and private sector leaders can use this data to address some of the country’s biggest challenges. The event brought together over 80 experts from government, business, nonprofit organizations, and academia. These Roundtable participants were asked to identify innovative ways that government agencies can leverage federal data in the following topical areas:

- Business & Entrepreneurship
- Health Outcomes
- Higher Education & Workforce Development
- Mapping & Geospatial Analysis
- Scientific Research & Innovation
- Social Services
- State & Local Government Partnerships

The Roundtable opened with keynote remarks from leaders in the Office of Management and Budget. The Roundtable then proceeded with lightning talks on innovative uses of federal data, interactive breakout sessions designed to identify and learn from existing challenges and successes, and a brief overview of plans for the Federal Data Strategy. During the breakout sessions, participants were divided into seven small discussion groups, one for each of the topical areas. The day concluded with a presentation of highlights from the breakout sessions to the full group, who were joined by leadership from the Office of Management and Budget, the Office of Science and Technology Policy, the U.S. Department of Commerce, and the U.S. Small Business Administration.

The full agenda for the Roundtable on Leveraging Data as a Strategic Asset can be found [here](#) and the list of participating organizations can be found [here](#). The Roundtable was held under the [Chatham House Rule](#), and participants were not asked to develop consensus recommendations but to share their own observations and suggestions.

## CHALLENGES USING FEDERAL DATA

Roundtable participants were asked to identify barriers in using federal data to deliver on mission, serve customers, and steward resources within the context of their topical breakout groups. Reinforcing several issues that have already been acknowledged in [plans for the Federal Data Strategy](#), Roundtable participants identified the following overarching challenges with accessing and using federal data:

- **Barriers to interagency collaboration.** Many participants, including those from the Social Services and Higher Education & Workforce Development breakout groups, noted that federal data initiatives often require a complex patchwork of interagency agreements that outline terms and conditions for data sharing. Participants from both the State & Local Government Partnerships and Scientific Research & Innovation breakout groups noted that it is often difficult to identify which federal agency owns which datasets.
- **Restrictions on data use.** Concerns about confidentiality and privacy remain widespread challenges for both federal data owners and users, particularly related to personally identifiable information (PII) such as sensitive health or financial information. Participants from several breakout groups emphasized the need to standardize and implement a federal approach to de-identifying data so that information on sensitive topics might be used without compromising confidentiality. Many participants also noted that some data is collected under rigorous statutory agreements that stipulate that it cannot be used beyond the original purpose for collection.
- **Misconceptions about statutory compliance.** Underlying many of the identified challenges in using federal data is a lack of consensus on the legal frameworks and procedures related to data management and use. For example, the Health Outcomes breakout group noted that privacy laws, including the [Health Insurance Portability and Accountability Act of 1996 \(HIPAA\)](#) and Section 42 of the [Code of Federal Regulations \(CFR\) Part 2](#), can be interpreted in multiple ways by different offices, agencies, and departments across the Federal Government, often resulting in barriers to data sharing and data use.
- **Lack of interoperability and data standards.** Federal data comes in many different formats, which can make it difficult to use and combine different datasets. Participants from the State & Local Government as well as the Mapping & Geospatial Analysis breakout groups identified problems related to metadata: When metadata is inconsistent or absent, it is difficult to understand the context in which the data was collected. Multiple data standards also make it difficult to ensure that confidential and sensitive data can be used without compromising privacy. This results in an ecosystem that does not easily allow data users to maximize use of the data produced, collected, and managed by the Federal Government.

## SUCSESSES USING FEDERAL DATA

While acknowledging challenges in using federal data, Roundtable participants also identified a wide range of successful data initiatives across all seven topical areas. Many of these success stories involve multiple agencies and organizations inside and outside the Federal Government coming together to deliver on mission, serve customers, and steward resources.

- **Cross-agency initiatives that advance evidence-based policymaking.** Roundtable participants from several breakout groups highlighted the U.S. Census Bureau’s [Longitudinal Employer-Household Dynamics \(LEHD\)](#) program as a successful data initiative that was made possible by the Census Bureau’s authority under [Title 13](#) and strong agency leadership. The LEHD program, and related geo-visualization tools such as [OnTheMap \(OTM\)](#), are very valuable for policymakers and researchers trying to address complex socio-economic challenges in the nation. The Social Services breakout group also discussed several initiatives at the U.S. Department of Agriculture (USDA) that use [Women, Infants, and Children \(WIC\)](#) and [Supplemental Nutrition Assistance Program \(SNAP\)](#) data. These programs are built on legal agreements with many state-level participants across the country, and provide valuable information to policymakers about vulnerable communities and the social services they use. The Scientific Research & Innovation breakout group also pointed to [Star Metrics](#), a program led by the National Institutes of Health (NIH), the National Science Foundation (NSF), and the Office of Science and Technology Policy (OSTP) that publishes data from many agencies to help evaluate the impact of research programs and investments.
- **Research collaborations that expand the capacity for data analysis.** Participants identified a wide range of cooperative efforts between the Federal Government and the academic research community. One frequently mentioned example was the system of [Federal Statistical Research Data Centers \(RDCs\)](#), which have helped to address data quality issues, encourage the analysis of microdata, improve replicability of research, and support iterative analyses rather than relying on one-off studies. RDCs have thrived in part due to their well-defined governance and decision-making rules. Roundtable participants also highlighted the [NORC Research Institute](#) at the University of Chicago as a highly secure data enclave to share confidential data, as well as a [collaboration](#) between George Mason University and the U.S. Department of Agriculture’s National Agricultural Statistics Service (NASS).
- **Data-driven tools and platforms that improve the lives of citizens.** Participants from the State & Local Government Partnerships breakout group highlighted the [Police Data Initiative \(PDI\)](#), which uses federal, state, and local government data to improve crime prevention, encourage novel approaches to problem-solving, and build connections between law enforcement agencies and their respective communities. As one participant noted, the PDI has been particularly successful because it embraces transparency “not for transparency’s sake, but to increase public trust in the police,” and because it was driven by pragmatic rather than abstract goals. Participants from the Higher Education and Workforce Development breakout group pointed to the [College Scorecard](#) as a strong example of combining datasets from multiple federal agencies

to serve citizens. The College Scorecard presents this data through an online tool that helps students and families assess opportunities for higher education.

- **Community-driven data standards that facilitate data exchange.** Participants in the Health Outcomes breakout group pointed to the National Patient-Centered Clinical Research Network (PCORnet) and its use of a [Common Data Model](#) (CDM). By using a CDM, PCORnet makes information accessible to researchers around the world in a way that facilitates combining data from different datasets and does not require extensive data cleaning before use. The Health Outcomes group also highlighted the [Fast Healthcare Interoperability Resources](#) (FHIR), which is a set of standards that enables the exchange of health data. Participants in the Social Services group additionally noted the success of the [National Information Exchange Model](#) (NIEM) and suggested that existing federal and state programs could learn from and/or leverage this model to improve data exchanges between the Federal Government and state and local governments.
- **Unique identifiers that help link together multiple datasets.** Roundtable participants from the Scientific Research & Innovation breakout group pointed to the value of the [Legal Entity Identifier \(LEI\)](#), which makes it possible to link together information about legal entities participating in financial transactions, as well as [ORCID](#), which similarly makes connections between researchers and their research contributions. These identification schemes allow information to be matched across multiple datasets, which can help to streamline data use and increase transparency. While unique identifiers have associated privacy and confidentiality concerns, Roundtable participants noted that unique identifiers can be developed in ways that actually enhance the privacy of individuals.
- **Initiatives that publish high-value data for public use.** Participants agreed that federal data is most useful when it is made available to be used by the public and private sectors, with several breakout groups mentioning the importance of [Data.gov](#) as the home of the U.S. government's open data. The Business & Entrepreneurship breakout group focused on large troves of publicly-available data from the National Oceanic and Atmospheric Administration (NOAA), which are easily available via NOAA's [National Centers for Environmental Information \(NCEI\)](#). The Mapping & Geospatial Analysis breakout group also highlighted the [National Address Database](#) as a notable initiative managed by the U.S. Department of Transportation. It provides publicly accessible geospatial data, largely developed through crowdsourcing, that provides high value to the private sector as well as federal, state, and local government.

## PROPOSED NEXT STEPS & RECOMMENDATIONS

The Roundtable discussions concluded with proposed next steps and recommendations designed to advance the Federal Government's ability to use data as a strategic asset. The recommendations below, which range from specific actions to broad, ambitious long-term changes, provide initial input from Roundtable participants on ways to meet the [Leveraging Data as a Strategic Asset CAP Goal](#). These are not formal or consensus recommendations from the Roundtable, but rather a synthesis of suggestions from participants and breakout groups throughout the day's discussions.

- **Start by developing a culture of data sharing within the Federal Government.** The long-term development of the Federal Data Strategy must include an effort to reshape the data sharing culture across the Federal Government. Roundtable participants noted that the Federal Government lacks a unified vision for sharing its vast data assets. Some suggested that agencies and offices should be incentivized to share their data. Successful examples of data sharing within the Federal Government should be used to inspire future programs, while less successful efforts should be reviewed to identify and address challenges.
- **Reduce obstacles to data sharing inside and outside the Federal Government through common data sharing agreements.** Across the board, Roundtable participants suggested developing a common set of data sharing agreements that agencies could refer to when requesting data from one another. This should be backed by resources and consistent support from agency leadership. Common data sharing agreements could facilitate interagency cooperation by creating norms and rules surrounding how, when, and why data can be shared and used. This standard language could reduce misinterpretations of agreements and other administrative barriers, ultimately encouraging data sharing, for example, between the Federal Government and state governments as well.
- **Develop and incentivize the use of federal data standards.** Roundtable participants overwhelmingly recommended the adoption of data standards, which provide standardized data formats for all federal agencies to use when collecting and publishing their data. Data standards, such as the National Information Exchange Model (NIEM), can improve interoperability while also increasing the ability of data owners to safeguard the privacy and confidentiality of sensitive information.
- **Protect privacy while expanding access.** Regarding privacy, the Federal Government should evaluate the benefits of various new technical approaches beyond traditional data de-identification to help ensure that sensitive information is protected while maximizing its utility to policymakers and researchers. Another suggestion included leveraging new privacy-protective technologies to create usable datasets without compromising privacy. Participants from the Health Outcomes breakout group also emphasized the importance of acquiring informed consent from patients in ways that enable data to be used more widely.
- **Consider both primary and secondary uses of data from the outset.** The Federal Government should anticipate secondary as well as primary uses of data so that it may easily be leveraged to answer policy questions beyond the original scope of collection. Because sensitive data is collected under certain agreements that stipulate how and when the data will be used, leveraging it for other purposes can be difficult. For example, facilitating secondary data use may require the re-negotiation of agreements between federal agencies and states, as well as the creation of government-wide data standards for states that produce and steward data.

## CONCLUSION

The Roundtable on Leveraging Data as a Strategic Asset provided a unique opportunity to convene experts from multiple levels of government, the private sector, nonprofit organizations, and academia shortly after the launch of the [President's Management Agenda](#) and the public announcement of plans for a Federal Data Strategy. The Office of Management and Budget's Deputy Director for Management, Margaret Weichert, said in a keynote that: "Doing this well requires collaboration across government, industry, and academia to deliver better results. [The ideas discussed at this Roundtable] will help us drive real change and transform how the Federal Government leverages data to enhance mission delivery and service while providing a foundation for economic growth."

The day's discussions identified several challenges and successes in using federal data, and produced a number of recommendations that the Administration can use to inform the [Leveraging Data as a Strategic Asset CAP Goal](#) and the development of the Federal Data Strategy. There is now an opportunity for continued stakeholder engagement to build on these insights and help make a positive impact on the federal data ecosystem for years to come.

**ABOUT THE CENTER FOR OPEN DATA ENTERPRISE** | The Center for Open Data Enterprise is an independent nonprofit organization, based in Washington, DC, that develops smarter open data strategies for governments, businesses, and other nonprofits by focusing on data users. Our mission is to maximize the value of open data as a public resource. We welcome feedback on this report. Please send comments and inquiries to Jacob Lewis, Research Fellow, at [jacob@odenterprise.org](mailto:jacob@odenterprise.org).

**The Center for Open Data Enterprise thanks our Open Data Partners, Accenture Federal Services and Booz Allen Hamilton, for supporting the Center’s work on Open Data Roundtables.**



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