

Policy Brief: The Hidden Importance of Publicly Available Government Data

Shelby Level

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Executive Summary

This policy brief examines various opportunities to increase the utilization and accessibility of open government data in the United States. It starts with a brief overview of the current policy context along with key stakeholders and their varying perspectives. Next, it explores the scope and severity of the problem and the rationale for government intervention. The policy brief offers five proposed policy alternatives: (1) status quo, (2) prioritize funding for federal data infrastructure in the federal budget, (3) expand and support the role of the chief data officer (CDO) for federal agencies and establish a federal CDO, (4) independent monitoring of the United States statistical system, and (5) implement the once-only principle (OOP), along with a set of criteria and accompanying metrics for evaluating the five proposed policy alternatives. Lastly, the policy brief recommends expanding and supporting the role of CDO, establishing a federal CDO, and independent monitoring of the United States statistical system and explores the political and implementation feasibility of this recommendation.

Part 1: The Problem

Problem Statement

In a world surrounded by technology and data, it's no surprise that a substantial amount of our understanding of public policy relies on high-quality data¹. However, available technology is being widely underutilized for the collection, analysis, and dissemination of data by the federal government². Government datasets are often siloed within a single federal agency or even a single department, leaving large gaps in the data and limiting interdisciplinary research and analysis². Policymakers are left unable to utilize data to clearly understand problems, evaluate government policies, and make effective policy decisions that ultimately affect millions of Americans and cost them billions of dollars¹.

Current Policy Context

In 2018 the OPEN Government Data Act was passed by Congress, requiring federal agencies to publish their information online as open data, use standardized, machine-readable data formats, and include their metadata in an online catalog³. The Federal Government is currently implementing this law through an open data site, Data.gov, that aims to increase citizen participation in government, create economic development opportunities, and inform decision-making in the private and public sectors by making government open and accountable³. The OPEN Government Data Act also requires the General Services Administration, the Office of Management and Budget, and the Office of Government Information Services to collectively establish resources.data.gov, an online repository of tools, best practices, and schema standards to promote the adoption of open data practices across the Federal Government³.

Simultaneously, the President's Management Agenda laid out a new Cross-Agency Priority (CAP) Goal: Leveraging Data as a Strategic Asset in March 2018 aimed at developing and implementing a comprehensive, government-wide data strategy⁴. The Federal Data Strategy, released in June 2019, was the first of its kind and included a mission statement, ten timeless, guiding principles for agencies, and 40 practices that served as aspirational goals to further these principles within 5 to 10 years⁴. This was followed closely by the 2020 Action Plan, released in December 2019, which identified priority practices for the given year and included 20 measurable activities to implement these practices⁴. The Annual Action Plan also identifies responsible parties and provides specific timeframes for the implementation of the 20 activities⁴. Combined, these documents serve as a strategic framework for federal agencies to advance the goals of the OPEN Government Data Act by improving their data management, use, and sharing⁴.

Stakeholder Analysis

Improving the use, management, and sharing of government data requires support from a variety of stakeholders both inside and outside of the Federal Government. Federal stakeholder and agency input is needed to work across government silos and capture the wide range of data produced by the Federal Government⁴. In contrast, non-federal stakeholder input strengthens the utilization of government data in a variety of ways across sectors⁵. The table below explores primary and secondary stakeholders and their unique perspectives on the problem.

Table 1: Primary and Secondary Stakeholders and their Perspectives

Primary Stakeholder	Perspective
Federal agencies and their employees	Play critical role in implementing strategies that improve data use ⁵
Chief Data Officers (CDOs)	Responsible for data management, integration, and governance within federal agencies ⁶
Congress	Enacts legislation, provides oversight for data initiatives
Private citizens/users of government data	Seek to increase government transparency and accountability
Nonprofit organizations	Utilize data to deliver services and improve lives ⁵
Secondary Stakeholder	Perspective
Academics/Researchers	Utilize data for academic research and analysis, lead the development of new data science techniques ⁵
State agencies and government	Utilize federal data to inform policymaking, evaluation, and decision-making
Private sector businesses	Possess experience and industry expertise in solving data challenges, utilize government data for market research, trend analysis, and decision-making ⁵
Media	Utilize federal government data for investigative reporting and analysis

Part 2: Exploring the Problem

Scope and Severity of the Problem

While the goals of the OPEN Government Data Act and the principles of the Federal Data Strategy are a step in the right direction, they are “inherently flawed” because they do not clearly connect high-level principles to government-wide or agency-level mission outcomes^{7,8}. Many agency chief data officers (CDOs) are forced to rely on their own agency-level strategies because the documents are too generic and high-level for agency use⁸. There have been no Federal Data Strategy Annual Action Plans released since 2021, and any progress made toward implementation has yet to be evaluated by the Office of Management and Budget (OMB)⁴. The OMB also has not issued implementation guidance to agencies on making data open by default and maintaining comprehensive data inventories that is statutorily required by the OPEN Government Data Act⁹. As of 2022, some federal agencies have made progress on their data inventories, however, none are meeting all of the public engagement requirements outlined by the OPEN Government Data Act⁹.

The politicization of federal statistics is another growing concern as politicians, special interests, and others attempt to undermine the credibility of government agencies and manipulate publicly available information to further their own agendas¹⁰. Oftentimes data collection operations that oppose the interests of the presiding administration are curtailed or canceled and statistical reports are delayed or withheld¹⁰. Interference with the federal statistical system is a commonality among both political parties, with the Obama Administration rewarding managers of the U.S. Department of Veterans Affairs medical centers and clinics who falsified data on patient wait times to meet unrealistic policy goals and the Trump Administration pressuring employees of the U.S. Census Bureau to manipulate the 2020 decennial census for political gain¹⁰. There is relatively little effort to evaluate the country’s statistical infrastructure and existing safeguards are insufficient against the increasing attempts to interfere with federal statistics¹⁰.

Rationale For or Against Government Intervention

The rationale for government intervention stems from the recognition that this is a federal problem and any progress to be made must come from the Federal Government. Data collection by the Federal Government is conducted by many distinct statistical agencies, and often federal law does not permit agencies to share information with each other¹. These federal policies that govern data-sharing often overlook the power of shared data and have repeatedly hindered collaboration among systems and agencies, leading to substantial inconsistencies within similar data assembled by separate agencies and a reduced quality of government-collected data^{1,6}.

Part 3: Alternative Solutions

The Federal Government has acknowledged the changing role of data and its potential to fulfill its mission, serve the public, and manage resources while still maintaining privacy and confidentiality⁴. However, to maximize the potential of open government data the Federal Government must consider alternative ways to implement the goals and principles set forth by the OPEN Government Data Act the Federal Data Strategy. This policy brief will evaluate five alternative solutions to the problem.

Status Quo

The OPEN Government Data Act and the Federal Data Strategy will continue to be implemented, or a lack thereof, in the same way. Data will exist siloed within individual statistical agencies and access to publicly available government data will continue to be limited.

Alternative 1: Prioritize Funding for Federal Data Infrastructure in the Federal Budget

Skilled personnel must be used to carefully collect and analyze federal data to ensure its accuracy and reliability, and this requires the government to allocate sufficient funding to data infrastructure within the federal budget¹¹. Efforts to improve intrinsic and contextual data quality that lead to increases in federal dataset views, dataset downloads, and open data use also require a skilled data workforce¹². A failure to allocate sufficient funding for statistical agencies within the federal budget threatens the quality of the data used to inform policy decisions across the country¹¹.

Alternative 2: Expand and Support the Role of the Chief Data Officer (CDO) for Federal Agencies and Establish a Federal CDO

Generally, the Chief Data Officer (CDO) is responsible for integrating data and developing best practices, but the definitive scope of the CDO role has often varied widely among government entities with differing expectations, responsibilities, and authorities⁶. The COVID-19 pandemic allowed CDOs to drive deeper integration of data within and among governments, academia, and private organizations, effectively clarifying the role of CDOs and solidifying their importance⁶. Increasing the value of the CDO role enables federal agencies to improve underlying infrastructure and share data across governments when providing services, gauging performance, and responding to crises⁶.

Alternative 3: Independent Monitoring of the United States Statistical System

The Foundations for Evidence-Based Policymaking Act of 2018 mandated government reporting and has led to a growing volume of publicly available data on the federal statistical system¹⁰. This data is already being used to monitor the capacity of national statistical systems to support specific policy goals, but it also offers a new opportunity to analyze the “health” of the statistical system itself¹⁰. An independent monitoring effort using several dimensions to track the “health” of an agency over time would help combat the increasing politicization of federal statistics and maintain an accurate and objective statistical system¹⁰.

Alternative 4: Implement the Once-Only Principle

The Once-Only Principle (OOP) is a flagship element of the European Union’s Digital Decade Agenda where users, including citizens, residents, and businesses, need to provide diverse data only once when in contact with public administrators¹³. After the initial data collection, various federal agencies can internally share and reuse this data to create public value and improve services¹³. Collecting data from individuals just one time and then using the data many times over will improve efficiency and data collection, reduce costs, and allow agencies to use data provided by another¹⁴.

Criteria 1: Financial Feasibility

Metrics

- Total cost of implementation of federal data infrastructure.
- Total cost of support for the role of chief data officer.
- Total cost of independent monitoring for the United States statistical system.
- Total cost of implementation of the one-only principle.

Criteria 2: Political Feasibility

Metrics

- Percent or number of primary stakeholders that support the policy alternative.
- Percent or number of political decision-makers that support the policy alternative.
- Percent of private citizens/public that support the policy alternative.

Criteria 3: Data Accessibility

Metrics

- Number of formats available for dataset downloads.
- Number of views for available datasets.
- Number of downloads for available datasets.
- Number of API uses.

Criteria 4: Data Accuracy and Quality

Metrics

- Frequency of dataset updates.
- Completeness of available datasets.
- Consistency of similar data across statistical agencies.

The table below evaluates each alternative based on the identified criteria and metrics.

Table 2: Evaluation Matrix

Alternative	Financial Feasibility	Political Feasibility	Data Accessibility	Data Accuracy & Quality
Status Quo	High	High	Low	Low
Prioritize Funding	Medium	Medium	Medium	Medium
Expand CDO	High	High	Medium	Medium
Role Independent	Medium	Medium	High	High
Monitoring Once-Only Principle	Medium	Low	High	High

Part 4: Recommendations

Recommendation

The best approach to maximizing the potential of publicly available government data is a combination of alternatives two and three because they demonstrate moderate to high impacts on data accessibility, accuracy, and quality while maintaining moderate to high financial and political feasibility. Establishing a federal CDO and expanding and supporting the role of CDO among federal agencies will enable better data-sharing across our government through

more efficient uses of collected data. Independent monitoring of the United States statistical system will provide safeguards against misinformation and the politicization of invaluable federal data.

Implementation Feasibility

Implementation of alternative two would begin by clearly defining the role and responsibilities of each federal agency CDO and a federal CDO office. Legislation would need to be enacted at the federal level or an executive order would need to be issued to formally establish the office of the federal CDO. Specific criteria and qualifications for the appointment of the federal CDO also need to be established. Implementation of alternative three would begin by clearly defining the goals and objectives of an independent monitoring system and identifying specific criteria and performance metrics that will be used. An independent oversight body of data and statistical experts also needs to be established. Implementation barriers could include disagreements on the specific roles and responsibilities of CDOs from different federal agencies and the federal CDO or disagreements on performance metrics that should be included in the evaluation of statistical systems.

Political Feasibility

Establishing a federal CDO and expanding and supporting the role of CDO among federal agencies would find strong support from political decision-makers because they recognize the need to appoint experienced data stewards throughout the government who can ensure the availability of high-quality data and drive data-sharing⁶. This alternative also has a relatively low cost compared to other alternatives because it is only one additional position and a CDO already exists for each federal agency. Independent monitoring of the United States statistical system would find neutral to positive support from political decision-makers because while it has great potential to bolster government credibility and limit disinformation, it will also prevent “bad actors” from furthering their own personal agendas¹⁰.

Conclusion

The importance of data in our everyday lives is more apparent now than ever before, and policymakers must continue to prioritize advancing open government data policies and initiatives. By embracing the policy alternatives discussed in this brief governments can increase the utilization and accessibility of federal data through an open data ecosystem. If used correctly, federal data provides unprecedented opportunities to inform decision-making, drive innovation, and enhance public trust, government accountability, and transparency.

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