

Recommendations Summary

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Recommendations Framework for the Year 2 Report

Part 1. Forthcoming Evidence Act Regulations and Guidance

- Primary Responsibilities for Statistical Agencies and Trust
- The Presumption of Accessibility for Statistical Agencies and Units
- Expanding Secure Access to CIPSEA Data Assets
- The Standard Application Process

Part 2. Other Evidence Act Items

Part 3. NSDS Organizational Structure and Governance

Part 4. The Vision for the NSDS—Future Roles and Responsibilities

- Coordination
- Communication
- Research and Development
- Data Standardization

Part 5. Resources and Funding



The Goal

To seize every opportunity to deliver <u>timely</u>, <u>actionable</u>, <u>and relevant recommendations</u>, fully supported by <u>detailed and nuanced findings</u> that reflect the knowledge and expertise the Committee has been sharing, packaged together in a <u>cohesive and balanced</u> <u>Year 2 report</u>.



The Standard Application Process

Legislation and Regulations Recommendation: OMB, in coordination with ICSP and key stakeholders, should identify opportunities for adding new functionality, efficiencies, and improving the user experience, as user groups, technology, and resources evolve. Any changes to SAP processes should be evaluated carefully, weighing both utility and risk. To support this evaluation, the SAP Project Management Office should collect metrics on risk, utility, and cycle time for approvals and, for transparency, should make these metrics available to the public.



Recommendations Example: Detailed and Nuanced Findings

Findings

- The America's DataHub Consortium (ADC) model at the National Science Foundation that the Committee recommends as the pilot foundation for the NSDS allows for flexible discretionary funding streams from a variety of sources.
- Flexibility to leverage offsetting collections, user fees, gift authority, and other mechanisms should be considered for the NSDS, along with authority to obligate and outlay those funds for approved projects and activities.
- Recognizing the multi-directional value stream that exists in federal-state partnerships, funding for NSDS services could be channeled through specific programs, like unemployment insurance and federal job training and education initiatives.
- The National Center for Advancing Translational Science (NCATS) provides an example of how a shared services model can be used to support evidence building.

Recommendation: NSDS Dynamic Funding Approaches

As data service capabilities and user demand for these services grow over time, the NSDS should explore sustainable and dynamic funding approaches, including Congressional appropriations, user fees for service, existing and new federal grant programs, repurposed agency funds, federal-state partnerships, private-sector support, and a shared services model.



The Vision for the NSDS—Future Roles and Responsibilities: Coordination—Technical Assistance **Other Services Recommendation, Technical Assistance 1**—NSDS website as the "Front Door" **Other Services Recommendation, Technical Assistance 2**—Opportunities for Automation **Other Services Recommendation, Technical Assistance 3**—Data Concierges **Other Services Recommendation, Technical Assistance 4**—Technical Assistance Leads **Other Services Recommendation, Technical Assistance 5**—Communities and Crowd-Sourced Support **Other Services Recommendation, Technical Assistance 6**—Improvement Through Stakeholder Engagement **Technical Infrastructure Recommendation**—Technical Support on Access Controls, Selecting Data Sets, and Data Access for Approved Uses **Technical Infrastructure Recommendation**—Data Auditability **Governance/Government Data Recommendations**—Integrated Data Inventory with Usage Statistics **Government Data Recommendation**—Searchable Inventory of Projects



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Subcommittee Recommendations in Year 2 Report Framework



The Presumption of Accessibility for Statistical Agencies and Units

Legislation and Regulations Recommendation: OMB, in coordination with ICSP and other relevant federal councils, should explore mechanisms for streamlining the MOU process, including developing standard MOUs, updating and expanding existing templates, and establishing best practices, including encouraging multi-year agreements that anticipate recurring needs based on the same justification.



Expanding Secure Access to CIPSEA Data Assets

Legislation and Regulations Recommendation: OMB, in coordination with the ICSP, should explore models for shared responsibility and safe harbor and should provide guidance on how to apply such models under the regulation to expand secure access to CIPSEA data assets.

Governance Recommendation: The Office of Management and Budget, in coordination with the Interagency Council on Statistical Policy, should adopt a risk-utility framework that (1) affirms that utility and risk should be separately measured but jointly determined and (2) serves as the basis for standards on sensitivity levels, access tiers, and risk evaluations, as described in Title III of the Evidence Act. Furthermore, OMB and ICSP should work with Evidence Act Councils and state and federal agencies to apply evidence on data use to inform the measurement of value, leverage models from the public and private sectors to measure risk, and apply the Five Safes Framework to develop combined utility-risk metrics that are open and transparent.



The Standard Application Process

Legislation and Regulations Recommendation: OMB, in coordination with ICSP and key stakeholders, should identify opportunities for adding new functionality, efficiencies, and improving the user experience, as user groups, technology, and resources evolve. Any changes to SAP processes should be evaluated carefully, weighing both utility and risk. To support this evaluation, the SAP Project Management Office should collect metrics on risk, utility, and cycle time for approvals and, for transparency, should make these metrics available to the public.



Sharing of Business Data Among Designated Statistical Agencies

Legislation and Regulations Recommendation: OMB, in coordination with the ICSP, should support legislative amendments under Evidence Act Section 3575 that would allow access to and sharing of federal tax information for businesses among the Bureau of Labor Statistics, the Bureau of Economic Analysis, and the Census Bureau.

Federal Statistical System Learning Agenda

Legislation and Regulations Recommendation: The Federal Committee on Statistical Methodology should support a federal statistical system-wide learning agenda to promote research on timely, relevant, and actionable questions.

Strengthen Penalties for Inappropriate Access and Use of Federal Data Assets

Legislation and Regulations: OMB should explore new frameworks for determining sanctions for unauthorized access, use, and disclosure of government data assets, including developing approaches that tie penalties to data sensitivity levels and access tiers, as outlined in the regulation on expanding access to CIPSEA data, and that consider different penalty structures for different actors—like individuals and institutions.



Governance Recommendation—The America's DataHub Consortium: The America's DataHub Consortium should serve as the foundation for the NSDS. OMB and ICSP, in coordination with the National Center for Science and Engineering Statistics (NCSES) at the National Science Foundation, should establish the America's DataHub Consortium (ADC) as the pilot foundation for a future NSDS. Over time, ADC should grow, adapt, and evolve to offer the capabilities and services necessary for it to realize the Committee's vision for an NSDS.

Government Data Recommendation—Early NSDS Pilot Projects: Building on Recommendation 5 in ACDEB's Year 1 report and evidence gained through the Committee's information-gathering process, in its initial phases, the NSDS should sponsor pilot projects that demonstrate the value of streamlining data sharing and increasing coordination, specifically with projects that highlight cross-functional, cross-agency, and cross-governmental topics. These projects should advance efforts already underway, with an emphasis on topics related to the Committee's use cases—that is, unemployment insurance, education and workforce, and health. These projects should include federal agencies, states, and localities as well as private-sector researchers.



Governance Recommendation—Government Owned, Government Contracted: The NSDS should be a legally recognized entity that is government owned and contractor operated. This hybrid approach would have a dedicated government Program Management Office (NCSES PMO) within the National Center for Science and Engineering Statistics (NCSES) and a dedicated contractor responsible for managing and operating the NSDS. This model will allow the NSDS the flexibility that it needs to innovate and to recruit and pay high quality staff, while also ensuring that the responsible contractor can be held accountable and deselected, if necessary.

Governance Recommendation—NSDS Network: NCSES, in coordination with OMB and ICSP, the Federal Councils, and state and local agencies, should assess the potential for a network of NSDS operational nodes, managed by a centralized entity, with strategic decisions and priorities informed by an advisory group. Transparency and accountability should be built into NSDS business operations.



Governance Recommendation—Role of Managing Entity: The NSDS should have a managing entity that is responsible for ensuring the effective operation of NSDS services, maintaining ongoing compliance with applicable requirements, and managing programmatic and operational risks. The managing entity should be led by a Chief Executive Officer and should be staffed by experienced and qualified personnel. The managing entity should be responsible for establishing key performance indicators (KPIs) in consultation with Evidence Councils and state and federal agencies to inform the selection and ongoing operation of service providers for each node. These KPIs should be used to track the value provided by the service providers and to inform the continuation and discontinuation of services.

Governance Recommendation—Structure of the Policy Steering Committee: The Policy Steering Committee is responsible for advising the NCSES Director on strategic direction and significant policy issues around research priorities, protecting sensitive data, cybersecurity, data quality, and other relevant policy concerns. The Steering Committee should be chaired by the Chief Statistician of the United States and should consist of federal Executive Branch stakeholders, such as the chairs of the ICSP, and Federal Councils, including the CDO Council, Federal Privacy Council, Evaluation Officer Council, and CIO Council.



Governance Recommendation—Structure of the Board of Directors: The Board of Directors is responsible for providing oversight in areas such as guiding principles and strategic planning, utility-risk framework, an ethical framework, including Diversity Equity and Inclusion, business management and operations, outreach and partnerships, infrastructure investment. A board of directors is critical to ensuring the NSDS remains accountable to the public and its membership should reflect the broader evidence-building ecosystem and include members from federal, state, and local agencies and the researcher and non-technical communities.

Government Data Recommendation—Governing Body: The governing body should be composed of both federal and non-federal stakeholders. Federal members should include ICSP members and other relevant federal actors. Non-federal members should include representation from state, territorial, local, and tribal governments; the academic community; and government beneficiary communities, for whom accessibility, trust, transparency, and utility are key. The diversity of the governing body helps to ensure that key stakeholders can participate in all relevant parts of the decision-making process, providing critical perspectives into the value proposition for NSDS execution partners, services, and individual projects alike.



Governance Recommendation—Structure of the Research and Technical Advisory Board: The Research and Technical Advisory Board is responsible for providing technical advice about privacy and access modalities, as well as the measurement of risk and value. It should include privacy, cybersecurity, and ethics experts, representatives from state and local agencies as well as the research community.

Governance Recommendation—Independent External Evaluation (Openness and Transparency): The NSDS should be independently externally evaluated every three years by a professional evaluation organization that would be chosen by the Board of Directors, the Policy Steering Committee and the Research and Technical Advisory Board. The external evaluation will be based on evaluating the results of the KPIs. The evaluation results should be transmitted to the NSDS management, the advisory boards and to the Steering Committee and then posted publicly.



Coordination—Develop Evidence Act Best Practices and Serve as Model for Testing and Implementation

Legislation and Regulations Recommendation: The NSDS should coordinate with statistical agencies, Evidence Act councils, and communities of practice to establish best practices around implementing the requirements of the Evidence Act and should serve as a model for testing and implementing those best practices for the federal government and beyond.

Government Data Recommendation—Primary Responsibilities of Statistical Agencies and Trust: As a CIPSEA entity, NSDS must operate under the mandates and frameworks of the law. As such, access to data through the NSDS will be for statistical purposes only. Data access, linkage, and analysis supported by the NSDS will never be used to enforce any local, state, or federal statute or to determine individual benefits.



Coordination—Develop Evidence Act Best Practices and Serve as Model for Testing and Implementation

Government Data Recommendation—The Presumption of Accessibility: The NSDS, in coordination with the ICSP, state and local data providers, and other key stakeholders, should explore how administrative data of federal agencies could be acquired: (1) to improve the core products of the statistical agencies themselves and (2) to be made available for access to meet evidence-building needs more widely. This includes setting up structures so that administrators of federal, state, and local governments can use federal data assets to help improve the administration of their own programs, without revealing the identity of any individual entity in the data. The NSDS should also work to facilitate states using the data they report to the federal government for their own evaluation and analytics, in addition to identifying ways to meet reporting requirements more efficiently.



Governance Recommendation—Role of NSDS: The NSDS should:

- Coordinate with statistical agencies, Federal information management councils, state and local agencies, and communities of practice to establish best practices around implementing the Access and Confidentiality Regulation
- Serve as model for testing and implementing those best practices
- Catalyze innovation around risk-utility metrics, sensitivity levels, tiered access (including secure remote access environments and privacy-preserving technologies) using the Five Safes Framework, and risk assessments



Government Data Recommendation—Model Risk-Utility Framework: As part of modeling how the riskutility framework described above could be implemented, access to data through the NSDS should start with a clear understanding of the value proposition for all parties involved, addressing key questions like: Why are stakeholders providing and combining data? And how will these efforts improve how agencies function and serve the public?

Technical Infrastructure Recommendation—Data Accessibility: The NSDS will provide technology so that users with various tiers of access can safely, easily, and efficiently analyze data assets hosted by affiliated organizations, including Federal, State, local, tribal governments, non-profit and other organizations. To support discovery of data assets for evidence building, the NSDS will provide a technological process to support access to discoverable metadata, request data access, track the approval process, and document the outcome.



Technical Infrastructure Recommendation—Disclosure Limitation: NSDS will facilitate the development and application of statistical disclosure limitation methods. This activity will include infrastructure to host tools and trainings included in the Data Protection Toolkit developed by the FCSM Committee on Data Access and Confidentiality and an active research program to develop new approaches and training. To ensure that methods applied are developed using realistic risk models, the NSDS will provide users with infrastructure and support for conducting privacy risk assessments.

Technical Infrastructure Recommendation—Data Integrity: The NSDS will provide tools and support to users in conducting secure, accurate, and scalable analytical and evidence-building activities such as tabulations, dashboards, regressions, record linking, and machine learning. The NSDS will support the development and deployment of data access protocols that offer alternatives to the standard direct data access models, such as synthetic datasets with access to a validation or verification server to check the integrity of results.



Technical Infrastructure Recommendation—Data Linkage: The NSDS will provide tools and support to users in conducting scalable, privacy-preserving record linkages in settings where it can reduce setup cost or time, facilitate data preparation and sharing, or provide access to new data sources or methods. The data concierge service will also coordinate with state, local, and tribal government officials seeking linkage services.



Coordination—Develop Evidence Act Best Practices and Serve as Model for Testing and Implementation

Government Data Recommendation—Standard Application Process: In keeping with the intent of the Evidence Act to create common frameworks and consistent approaches, the ICSP should expand the SAP process to be the mechanism through which data users apply to access all confidentiality data assets envisioned as part of the NSDS—whether those data are non-public assets of statistical agencies, programmatic data acquired by statistical agencies from other federal agencies through the presumption of accessibility, or administrative data provided by state and local governments for their own or others' evidence building needs. As part of this expansion, the NSDS and ICSP should coordinate with data providers so that agencies maintain control of their data but also meet service standards for timely decisions on data access, building on those outlined by the SAP policy. Over time, ICSP should also expand the technical assistance provided to data users, in line with the services envisioned for the NSDS.



Other Services Recommendation—Technical Assistance 1: The NSDS website should serve as a "Front Door" to the nation's data assets, organized around a set of personas that reflect specific user needs.

Other Services Recommendation—Technical Assistance 2: The NSDS should identify opportunities for automation in its "intake process," providing a high-quality user experience while focusing staff effort on more complex user needs.

Other Services Recommendation—Technical Assistance 3: The NSDS should employ Data Concierges to help NSDS users (including those who are seeking access to data assets via the SAP) refine their research projects, locate relevant data, and acquire access to that data.



Other Services Recommendation—Technical Assistance 4: The NSDS should employ a series of Technical Assistance Leads who develop educational resources for data stewards and data users related to the methods and technologies used in the NSDS ecosystem.

Other Services Recommendation—Technical Assistance 5: The NSDS should actively encourage the development of communities that are incentivized to provide "crowdsourced" support to the Service's users, complementing the work of Data Concierges.

Other Services Recommendation—Technical Assistance 6: Technical assistance services, including those provided by Data Concierges and Technical Assistance Leads, should be informed and improved by a systematic process of stakeholder engagement.



Technical Infrastructure Recommendation—Technical Assistance: The NSDS will also provide technical support for a concierge service to aid data contributors in deciding which access controls to apply to their datasets and to aid analysts in selecting datasets and obtaining access for approved uses. This support should enable both automated (bots) and in person assistance and provide usage metrics.

Technical Infrastructure Recommendation—Data Auditability: To ensure auditability and transparency, the NSDS will provide tools to track the provenance of all datasets and all evidence-building analyses performed over these datasets. This will include tools for accessing and reporting on the quality of data assets, aligned with recommendations from the Federal Committee on Statistical Methodology (FCSM). To promote open and reproducible science, the NSDS will provide public attestation of the datasets and procedures used in a data analysis, upon request.



Governance Recommendation: OMB, in coordination with NCSES, should identify ways for the NSDS to coordinate with the ICSP and the Chief Data Officer Council to establish an integrated data inventory for all federal data assets. This inventory should be available to the public using methods that are easy to access and understand, creating a seamless experience for both sophisticated and novice users, and should feature usage statistics to track the value and uses of those assets.

Government Data Recommendation: The NSDS should coordinate with the ICSP and the Chief Data Officers Council to maintain an integrated data inventory for all federal data assets, along with appropriate metadata. This inventory should be updated regularly and made available to the public using methods that are easy to access and understand, creating a seamless experience for both sophisticated and novice users. In addition, the inventory should feature usage statistics to track the value and uses of those assets. Over time, information on any data asset used for an NSDS project, whether provided by the federal government, state and local governments, or the private sector, should be made available through this data inventory.



Government Data Recommendation: The NSDS should collect and house a searchable inventory of projects that highlights what data sets are being used for what purposes. In addition, the NSDS should leverage this inventory to identify projects that may have overlap and should explore mechanisms that incentivize stakeholders to coordinate through the NSDS on these projects with the aim of fostering better, broader, timelier, more efficient, and/or more collaborative research outcomes.



Coordination—Other

Legislation and Regulations Recommendation: The NSDS should collaborate with state and local CDOs on model state legislation and rules for data access toward harmonizing data systems.

Governance Recommendation—Role of NSDS: The NSDS should offer administrative infrastructure that can support the provision of hardware, software, and training to support federal, state, and local agencies, as well as academic and non-technical communities.



Communication

Other Services Recommendation—Communication 1: OMB should adopt a clear statement of purpose for the NSDS that is rooted in its core value proposition.

Other Services Recommendation—Communication 2: OMB should create a public web presence for the NSDS that can serve as a hub for information about, and communications from, the Service.

Other Services Recommendation—Communication 3: Build a comprehensive communications strategy for the NSDS.

Other Services Recommendation—Communication 4: The NSDS must build a system for routinely engaging with key stakeholder groups and user communities for the purposes of needs sensing, operational improvement, and advocacy for the use of data to improve policy-making.



Communication

Legislation and Regulations Recommendation: As part of its comprehensive communication and education strategy, the NSDS, Evidence Act Councils, and other federal and non-federal stakeholders, should provide educational resources and support training on data sharing for agency lawyers at the federal, state, and local levels. For maximum effect, this training should be conducted by lawyers and should clearly describe the importance of tools like common templates and approaches. Likewise, the NSDS should provide resources and training for data staff on legal issues around data sharing.

Governance Recommendation—Role of NSDS: The NSDS should clearly communicate with the public on the risk-utility tradeoff and how determinations are made.



Communication

Technical Infrastructure Recommendation—Knowledge Sharing: NSDS should provide guidance to users and the general public about the evolving state of the art in solutions for evidence-building in a privacy-preserving, publicly auditable, and fair and equitable manner.

Additionally, NSDS should provide web-based infrastructure to foster communities of practice to support cross-discipline work and knowledge sharing, in coordination with federal funding agencies such as NSF, NIH, and DARPA that invest in foundational research in these areas.



Research and Development

Technical Infrastructure Recommendation—Innovation Sandbox: NSDS should feature a sandbox for testing new and innovative technologies and software for multiple data access tiers, data protection protocols, and data analysis. The NSDS should be a neutral ground between agencies where secure testing of new data linkages, privacy-preserving technologies, and model approaches can occur.

Technical Infrastructure Recommendation—Privacy Preserving Technologies: NSDS will support research and development into privacy technologies that support working with data in situ. Infrastructure should support development and testing of new methods (including open competitions) and functionality to help build capacity at all levels of government through training and technical support. These technologies broaden access so that more people can perform expressive analyses over a wider range of datasets.



Data Standardization

Legislation and Regulations Recommendation: To increase the interoperability and usability of data for policy development and to decrease cycle time for analysis, the NSDS should coordinate with stakeholders to sponsor projects aimed at establishing recommended standards for metadata, file format, and syntax for government data at all levels. The NSDS should work with data providers, data users, and related communities of practice to refine these standards through iterative testing and piloting.



Federal Budget Request

In implementing the Evidence Act and the President's Memorandum on Scientific Integrity and Evidence-Based Policymaking to Agency Heads (January 27, 2021), the OMB Director and Agency Heads should allocate funds from their existing appropriations to adequately resource and support evidence-building activities in the current year. Because every agency has different budget amounts and needs, this allocation should be determined in consultation with the needs specified by the designated chief data officer, evaluation officer, and statistical official of each agency.

In addition, the Committee strongly recommends that the OMB Director prioritize direct appropriations and funding flexibilities as part of the FY 2024 Budget formulation process and encourages all Agency Heads to prioritize Evidence Act implementation activities.

Federal Transparency

OMB should publish agency requests for funds in the budget formulation process as a matter of public record and to support transparency and accountability in evidence-based policymaking.



OMB Staff

The OMB Director should prioritize additional resources for OMB staff responsible for coordinating implementation of the Evidence Act Title 3 regulations, Title 2 guidance, Title 1 implementation activities, and other evidence-building priorities in the current fiscal year, for the FY 2023 appropriation and spending plan at OMB, and the FY 2024 Budget Request.

Federal Resources for Government Data Providers and Users at Other Levels

Recommendation pending

NSDS Direct and Discretionary Sources

NSDS core capabilities should be funded by direct spending, supported by additional discretionary funding as the service evolves.



NSDS Dynamic Funding Approaches

As data service capabilities and user demand for these services grow over time, the NSDS should explore sustainable and dynamic funding approaches, including Congressional appropriations, user fees for service, existing and new federal grant programs, repurposed agency funds, federal-state partnerships, private-sector support, and a shared services model.

NSDS Support for State and Local Governments

The NSDS should strive to connect state, territorial, local, and tribal governments with the resources they need to develop more robust and flexible data systems and to invest in human capital and technical expertise to engage in value-added evidence building.

NSDS Project Sponsorship

NSDS core capabilities should be funded by direct spending, supported by additional discretionary funding as the service evolves.



NSDS Project Sponsorship

The NSDS, under the direction of its policy and governing bodies and in coordination with other key stakeholders, should regularly sponsor projects that demonstrate the value of streamlining data sharing and increasing coordination, specifically with projects that highlight cross-functional, cross-agency, and cross-governmental topics. To sponsor projects, the NSDS must have a direct appropriation to provide sufficient resources as a sponsor across multiple program areas that enables blending and braiding of funding.

NSDS Equitable Pricing Model

Access to, and use of, NSDS services should be based on an equitable pricing model. When developing its pricing strategy, the NSDS should consider criteria like the following: (1) stakeholder ability to pay and (2) the "cost" of using the data, tied to a risk utility framework that reflects both the inherent privacy loss of using the data as well as the anticipated benefit of analysis.

