

# **ACDEB Year 2 Report Highlights**

**Emilda Rivers, ACDEB Chair** 

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## ACDEB's Charge

To review, analyze, and make recommendations to the OMB Director on how to promote the use of federal data for evidence building, with an emphasis on Title III of the Evidence Act

### Overview



## Progress—the Here and Now

- Part 1. Forthcoming Evidence Act Regulations and Guidance
- Part 2. Other Evidence Act Items
- Promise—the Vision for the National Secure Data Service
  - Part 3. NSDS Functions
  - Part 4. NSDS Organizational Structure and Governance
  - Part 5. NSDS Technical Infrastructure and Tools
  - Part 6. Resources and Funding



## **Key Ideas:**

Forthcoming Evidence Act Regulations and Guidance and Other Evidence Act Items

The CIPSEA 2018 requirements enhance how the federal statistical system facilitates evidence building and provide necessary frameworks to inform the development of the NSDS. The NSDS must operate under these requirements.

## The Evidence Act and the NSDS



**Recommendation 1.1.** The OMB Director, in coordination with the Interagency Council on Statistical Policy (ICSP), should issue guidance and regulations required under the Evidence Act, incorporating feedback from ACDEB's Year 1 report, subsequent engagements with the Committee, and this report.

**Recommendation 1.2.** OMB, in coordination with the ICSP and other federal councils, should promulgate required Evidence Act regulations and guidance with an eye toward supporting the NSDS functions, as envisioned by the Committee.

# Part 1. Forthcoming Evidence Act Regulations and Guidance



Evidence Act Items	Recommendations
Primary Responsibilities of Statistical Agencies and Trust	Rec. 1.3. Promote Public Trust
The Presumption of Accessibility for Statistical Agencies and Units	<b>Rec. 1.4.</b> Maximize the Impact of Federal Administrative Data for Evidence-Based Decisionmaking
	Rec. 1.5. Data-Sharing Agreements Across Federal Agencies
<b>Expanding Secure Access to CIPSEA</b>	Rec. 1.6. Risk and Utility Framework
Data Assets	Tiered Access in Practice
	<b>Rec. 1.7</b> Increase Adoption of Privacy-Preserving Technologies Within Government
	Rec. 1.8. Shared Responsibility and Safe Harbor Principles
	<b>Rec. 1.9.</b> Strengthen Penalties for Inappropriate Access and Use of Federal Data Assets
<b>Standard Application Process</b>	Rec. 1.10. SAP Evolution

## Part 2. Other Evidence Act Items



Evidence Act Items	Recommendations
Sharing of Business Data Among Designated Statistical Agencies	<b>Rec. 2.1.</b> Legislative Text to Allow Full Implementation of Evidence Act Section 3575
Federal Statistical System Learning Agenda	<b>Rec. 2.2.</b> Promote Research on Timely, Relevant, and Actionable Questions, Demonstrating the Value and Promise of the NSDS

# Spotlight: Expanding Secure Access to CIPSEA Data Assets



## **Risk and Utility Framework**

**Recommendation 1.6.** OMB should adopt a risk-utility framework as the basis for standards on sensitivity levels, access tiers, and risk evaluations as part of the regulation on expanding secure access to CIPSEA data assets.

- Risk and utility—separately measured but jointly determined
- Evidence on data to inform the measurement of value
- Well-tested frameworks to measure and mitigate risk
- Five Safes framework to operationalize value and risk metrics

## Spotlight: Expanding Secure Access to CIPSEA Data Assets



## **Increase Adoption of Privacy-Preserving Technologies Within Government**

**Recommendation 1.7.** OMB, in coordination with the ICSP, should promote the use of privacy-preserving technologies in the tiered access framework required under Title III of the Evidence Act by identifying an initial set of promising tools over the next 1 to 3 years.

### <u>Summary</u>

- Seeking answers to questions based on input data they never "see"
- PPTs enable evidence building while balancing input and output privacy needs
- Rapid advance in maturity and pilot deployments of PPTs
- Continued research is needed—with a key role for the NSDS



# **Key Ideas: NSDS Functions**

The NSDS would enter the existing evidence ecosystem as a new partner, striving to complement and enhance—rather than supplant or replace—current actors, infrastructures, and capabilities. The NSDS should fill gaps in the ecosystem through its core functions.

### Part 3. NSDS Functions



#### **NSDS Core Functions**

**Function 1. Coordination.** Coordinate and support evidence-building efforts that cut across entities by facilitating linkage of, secure access to, and analysis of nonpublic data and by providing capacity-building services for data users, data providers, and related communities of practice.

**Function 2. Communication.** Communicate the value and use of data for evidence building and how the data are protected.

**Function 3. Research and development (R&D).** Facilitate R&D and adoption of practices and methods that enhance privacy and confidentiality and improve record linkage quality.

**Function 4. Data standardization.** Foster and promote data standardization to enable more efficient and high-quality linkage, access, and analysis.



Items	Recommendations	
Function 1. Coordination		
Advance Evidence Act Implementation for the Federal Government and Beyond	<b>Rec. 3.1.</b> Establish Best Practices and Serve as a Model for Testing and Demonstrating Those Practices	
Support a High-Quality User Experience, Including Providing Technical Assistance	Rec. 3.2. NSDS Website as a "Front Door"	
	Rec. 3.3. Automation in the Intake Process	
	NSDS User Experience and Technical Assistance Roles	
	Rec. 3.4. NSDS Data Concierges	
	Responsibilities of Service Providers and Partners	
	Rec. 3.5 Technical Assistance Leads	
	Rec. 3.6. Crowdsourced User Support	
Project Sponsorship	<b>Recommendation 3.7.</b> Sponsor Projects that Demonstrate the Value of Streamlining Data Sharing and Increasing Coordination	



Items	Recommendations
Function 2. Communication	
NSDS Mission Statement	Rec. 3.8. Adopt a Clear Statement of Purpose
NSDS Public Information Hub	<b>Rec. 3.9.</b> Create a Central Repository for Resources About, and Communication From, the NSDS
Comprehensive Communications Strategy	Rec. 3.10. Build a Comprehensive Communications Strategy
Systematic Engagement for Continuous Improvement	<b>Rec. 3.11.</b> Build a System for Routinely Engaging with Key Partner Groups and User Communities



Items	Recommendations
Function 3. Research and Development	
Innovation Sandbox	Provide a Neutral Innovation Sandbox for Testing New and Innovative Technologies, Software, Methods, and Analysis
<b>Privacy-Preserving Technologies</b>	Rec. 3.12. Promote the Use of PPTs
Function 4. Data Standardization	
Data Standardization	<b>Rec. 3.13.</b> Develop and Promote Standards for Government Data at All Levels

# Spotlight: Function 1. Coordination



## Support a High-Quality User Experience, Including Providing Technical Assistance

**Recommendation 3.2.** The NSDS website should serve as a "front door" to the nation's data assets, organized around a set of personas that reflect basic user needs.

Path 1: "I have a question." Evidence need can be met with existing agency information. Path 2: "I'd like access to an existing federal data asset."

Evidence need can be met using existing data asset.

Path 3: "I need to create a new data asset."

Evidence need can be met through the creation of a new data asset.

**Recommendation 3.3.** The NSDS should Identify opportunities for automation of its "intake process," providing a high-quality user experience while focusing staff effort on complex user needs.

# Spotlight: Function 2. Communication



### **Comprehensive Communications Strategy**

**Recommendation 3.10.** The National Center for Science and Engineering Statistics (NCSES), in coordination with OMB and the ICSP, should build a comprehensive communications strategy for the NSDS.

- Key features: comprehensive, sustained, professionally managed
- Elements include: (1) NSDS website as a focal point, (2) enumerate key audiences, (3) identify influential organizations to amplify NSDS communications, (4) recruit champions from diverse communities, (5) develop communication artifacts, and (6) align communication activities with the phases of NSDS design

# Spotlight: Function 3. R&D



### **Privacy-Preserving Technologies**

**Recommendation 3.12.** The NSDS should promote the use of privacy-preserving technologies that can support working with data in situ, coordinating with the research community to develop efficient, scalable tools for users from all levels of government (including through open competitions).

- Coordinate, support, and advance the testing and adoption of PPTs
- Build capacity for users deploying these technologies
- Provide information on PPTs to users and the public
- Build on, rather than duplicate, others' research
- Show what is possible, what fails, and why

# Spotlight: Function 4. Data Standardization



**Recommendation 3.13.** The NSDS should coordinate with stakeholders to develop and promote standards for government data at all levels.

- Importance of data standards for improving data quality and promoting transparency and accountability
- Sponsor projects that encourage federal, state, and local partners to standardize metadata, file formats, and syntax
- Work with data providers, data users, and related communities of practice to refine these standards



# **Key Ideas NSDS Organizational Structure and Governance**

The NSDS governance structure must effectively support the data service's core functions. The structure must be characterized by a clearly defined mission, clearly defined measures of success, and meaningful mechanisms for diverse stakeholders to provide oversight and advice. A phased implementation approach is critical for standing up the structure and developing core functionality.

# Part 4. NSDS Organizational Structure and Governance



Items	Recommendations
Foundation for the NSDS	<b>Rec. 4.1.</b> Establish America's DataHub Consortium as the Pilot Foundation for the NSDS
NSDS as a Government-Owned and Contractor-Operated Organization	Rec. 4.2. Form the NSDS as a Legally Recognized Entity that is Owned by the Federal Government and Operated by a Contactor Diverse Oversight and Advice  Phased Implementation Approach
Holistic Governance Approach to Transparency and Accountability	<b>Rec. 4.3.</b> Model a Holistic Approach to Transparency and Accountability
Near-Term Project Functions and Pilots	<b>Rec. 4.4.</b> Sponsor Pilot Projects that Explore the NSDS Core Functions and Demonstrate the Value of Streamlining Data Sharing and Coordination

# Spotlight: NSDS Organizational Structure



#### America's DataHub Consortium as the Foundation for the NSDS

**Recommendation 4.1.** NCSES, in coordination with OMB and the ICSP, should leverage Congressionally appropriated demonstration project funding to establish the America's Datahub Consortium (ADC) as the pilot foundation for the NSDS. The ADC should sponsor pilots that demonstrate how data service structures and functions could grow, adapt, and evolve over time to realize the Committee's vision for the NSDS.

### <u>Summary</u>

- Dynamic initial foundation for a fully realized NSDS
- Flexible acquisition path
- Multiple initiatives—the ADC, the SAP, and the NSDS—develop in parallel

# Spotlight: NSDS Organizational Structure



### **NSDS** as a Government-Owned and Contractor-Operated Organization

**Recommendation 4.2.** The NSDS should be a legally recognized entity that is owned by the federal government and operated by a contractor.

### <u>Summary</u>

- Government Program Management Office plus dedicated contractor
- Flexibility to support core functions, to innovate, and to recruit and pay highquality staff
- Multi-faceted approach to evidence building through contracted service providers and partnerships



# Key Ideas NSDS Technical Infrastructure and Tools

To make the path for evidence building easier and more predictable—both for data access and privacy protection—the NSDS must provide technical infrastructure and tools to support its core functions, operating under the same CIPSEA frameworks as the federal statistical agencies.

# Part 5. NSDS Technical Infrastructure and Tools



Items	Recommendations
Accessibility	Rec. 5.1. Technology to Analyze Datasets Hosted by Affiliated Organizations
	Rec. 5.2. Technological Process to Support Data Discovery
	Rec. 5.3. Harmonized Data Inventories and Catalogs
	Rec. 5.4. Searchable Project Inventory
Data Integrity	<b>Rec. 5.5.</b> Tools and Support to Users in Conducting Secure, Accurate, and Scalable Analyses
Disclosure Limitation	<b>Rec. 5.6.</b> Development and Application of Statistical Disclosure Limitation Methods
Auditability	Rec. 5.7. Tools to Track the Provenance of Data Sets and Analyses
Data Linkage	<b>Rec. 5.8.</b> Tools and Support to Users in Conducting Scalable, Privacy-Preserving Record Linkages
Innovation Sandbox	<b>Rec. 5.9.</b> Sandbox for Testing Innovative Technologies and Software, Data Protection Protocols, and Data Analysis

# Spotlight: NSDS Technical Infrastructure and Tools



### **Harmonized Data Inventories and Catalogs**

**Recommendation 5.3.** To support a seamless user experience, the NSDS should provide training and tools to harmonize the format and content across data inventories and catalogs and to ensure complete, consistent metadata are included in these inventories.

- The importance of data discovery in the evidence-building process
- Support a seamless experience for users accessing various federal data inventories and catalogs
- Prioritize training and tools to help data providers develop and improve their inventories

# Spotlight: NSDS Technical Infrastructure and Tools



#### **Innovation Sandbox**

**Recommendation 5.9.** The NSDS should feature a sandbox for testing new and innovative technologies and software for multiple data access tiers, data protection protocols, and data analysis.

### <u>Summary</u>

- Create secure spaces where new products and approaches could be developed and tested
- Neutral ground where testing, training, and product development can occur
- Understand challenges and determine whether technologies meet users' needs
- Laboratory for: (1) testing and improving new technologies and how to incorporate them, (2) developing new products, and (3) providing a pathway for technology transition of mature products into the NSDS



# **Key Ideas Resources and Funding**

For the data ecosystem to flourish, there must be adequate resources available to both (1) data and data service providers across all levels of government and (2) public and private-sector data users, using mechanisms that are transparent, equitable, and sustainable. The NSDS is strategically positioned to help meet the needs of other actors in the ecosystem.



Items	Recommendations
Resources to Enhance the Existing Evidence Ecosystem	
Federal Agencies' Implementation of the Evidence Act	Rec. 6.1. Near-Term Resource Strategy for Evidence Act Implementation Rec. 6.2. Systematic Resource Planning for Evidence Act Implementation Rec. 6.3. Designated Funding Stream for Evidence-Building Activities Rec. 6.4. Additional Resources for OMB Staff
State, Territorial, Local, and Tribal Governments	<b>Rec. 6.5.</b> New Block Grant to Support Cross-Program Data and Infrastructure Improvements and Data Modernization
NSDS Resources to Meet Its Mission	
<b>Direct Spending</b>	Rec. 6.6. NSDS Core Functions Funded Through Direct Spending Authority
Mixed Funding Model	<b>Rec. 6.7.</b> Mixed Funding Model That Leverages Sustainable and Dynamic Funding Approaches

# Spotlight: Resources and Funding



### **Designated Funding Stream for Federal Evidence-Building Activities**

**Recommendation 6.3.** The OMB Director should request funding and authority in the FY 2024 Budget for a new interagency budget account with transfer authority to support Evidence Act implementation.

### <u>Summary</u>

- Increasing shared or cross-agency evidence and data needs or priorities
- Funding can be challenging
- A shared interagency fund to mitigate limitations

# Spotlight: Resources and Funding



### Resources for State, Territorial, Local, and Tribal Governments

**Recommendation 6.4.** The OMB Director should propose in the FY 2024 Budget request a new block grant for state, territorial, local, and tribal funding to support cross-program data infrastructure and data modernization.

### <u>Summary</u>

- Lack of resources, capacity, and technical capability
- Need for a better "two-way" data flow
- Data quality starts at the source
- No single existing mechanism is likely to address capacity gaps



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