

## The National Science Foundation's (NSF) National Center for Science and Engineering Statistics (NCSES)

## **Request for Information**

**Use Cases to Inform a Future National Secure Data Service** 

RFI Issue Date: April 16, 2024

RFI Response Deadline: June 14, 2024, 5 PM ET

**Background.** The National Center for Science and Engineering Statistics (NCSES), an independent federal statistical agency housed within the U.S. National Science Foundation (NSF), is responsible for the collection, analysis, and dissemination of data on the science and engineering enterprise (S&E). NCSES's primary role originated in the NSF Act of 1950 (42 U.S.C. 1862 (a) (6)): To provide a central clearinghouse for the collection, interpretation, and analysis of data on scientific and engineering resources and to provide a source of information for policy formulation by other agencies of the federal government.

In 2017, the Commission on Evidence-Based Policymaking recommended the establishment of a National Secure Data Service (NSDS) to facilitate access to data for evidence building while ensuring privacy and transparency in how those data are used. The Foundations for Evidence-Based Policymaking Act of 2018 (Evidence Act) authorized an Advisory Committee on Data for Evidence Building (ACDEB) to review, analyze, and make recommendations on how to promote the use of federal data for evidence building. To that end, the ACDEB Year 2 report casts a vision for the role of the National Secure Data Service and maps out the data service's organizational structure, technical infrastructure, and functions to actualize this vision.

The CHIPS and Science Act of 2022 authorized NSF to establish a five-year National Secure Data Service Demonstration Project, or NSDS-D, operated directly or via a contract by NCSES. Additional information on the NSDS-D can be found at: <a href="https://ncses.nsf.gov/about/national-secure-data-service-demo.">https://ncses.nsf.gov/about/national-secure-data-service-demo.</a>

A future NSDS would provide a platform of shared services to streamline and innovate data access, data linkage, and privacy-protections to support expanded data use. Collaboration with all levels of government — including state, local, and tribal governments, as well as non-government stakeholders — will be critical in developing this data ecosystem. The goal of an NSDS is to support research and decision-making through the use of data, with particular emphasis on decisions about public programs and policy. To support this vision, investments to enhance innovations for data linking, data protection, and streamlining processes across the federal government will be critical. The NSDS Demonstration Project will inform decisions about whether an NSDS will be established and what form it will take, determine which shared services are needed and will be most effective, and identify resources and innovations to support a possible future NSDS.

**Objective of this Request for Information (RFI).** This RFI encourages response from a broad and diverse group of communities, including but not limited to individuals and organizations that conduct work in research, policy, program, and education. The goal is to gather current and anticipated research, policy, program, and education use cases for an NSDS, and to also identify current and anticipated challenges and barriers that could be addressed through the use of an NSDS. **This RFI does not invite research proposals.** 

**Use of the information gathered.** The information gathered in this request will be used by federal agencies participating in the NSDS-D to better target and shape the design of a future NSDS. Participating federal agencies reserve the right to publicly post aggregate analyses based on the RFI on a government website; personally identifiable information from the individual responses will not be disclosed. It is recommended that submitters not include proprietary or other sensitive information in the response. The primary submitter may be contacted for more information or clarification.

**How to respond to this RFI.** Individuals and groups of individuals in all research, policy, program, and education domains are invited to **submit responses using the online submission form.** 

The online submission form requests the following information:

- 1. Primary information about the submitting author(s): Primary submitter's name, affiliation, and valid contact email address (to be used only by the agencies for potential follow-up contact to the submitters); any additional submitting authors with their affiliations; and your roles(s) in the research, policy, program, and/or educational activities described in the submitters' response.
- 2. Research, policy, program, and education use cases: Describe the use cases or activities that you are proposing, pursuing or anticipate pursuing that would benefit from the use of NSDS resources and tools (such as assistance in use of a secure compute environment for data linking and analysis, application or use of artificial intelligence tools, facilitated data access to public or restricted data, engaging a community of practice, access to training or other services, and assistance in navigating the NSDS suite of services); indicate how you could use or anticipate using shared services or resources available in a future NSDS (for instance, understanding the differences between two types of data sources, linking two or more different sources of data, and understanding current uses of data on topics of interest). See the definitions of resources below for more information.
- 3. Barriers and challenges to accessing and using future NSDS shared resources and tools: Please describe the challenges and barriers in pursuing your listed activities and indicate how a future NSDS could mitigate them. (For instance, access to data and materials, computing capacity, and other technical resources, need for training or skills development, etc.).
- 4. Priorities for accessing and using future NSDS resources: The NSDS intends to provide access to the categories of resources listed below. Please prioritize these categories based on importance and urgency for your research, policy, program, or education activities. Using 100 points total, assign a value between 0-100 to each category based on the relative importance. (As examples, if only 1 category is important, include all 100 points for that category; alternatively, if two categories are of equal importance, include 50 points each; or, if all 5 categories are of equal importance, 20 points each).
  - a. Resources
    - 1. **Concierge Services** technical assistance to individuals seeking access to federal data.
    - 2. **Data Sharing Services** agreement templates, best practices, and other services to improve data sharing.
    - 3. **Data Integration Methods** data linking and other approaches that support data interoperability (data quality, standards, metadata, definitions, systems, and technologies).
    - 4. **Secure Compute Environment** a secure environment in which data can be linked and utilized for statistical purposes.
    - **5. Toolkits** tools to support the use of NSDS resources (e.g., a synthetic data generator toolkit).
  - b. Please comment here on your selections and on the extent to which you need training and user support to use these services and resources, including access to experts. In addition, please comment on any other resources not on the list that would be of value.
- 5. Other comments: Please comment on anything else you would like to tell us regarding a future NSDS.

Submission deadline. Please complete all required questions on or before 5:00 PM Eastern time on June 14, 2024.

Questions. For questions concerning this RFI, please contact adc@ati.org.