Development of a Prototype for the Standard Application Process (SAP) Portal and Data Usage Platform (DUP) as a Federal Data Asset

Requests for Solutions Webinar

Dr. Heather Madray
NCSES, Program Director for Data Access, Confidentiality, and Quality Assessment (DACQA)

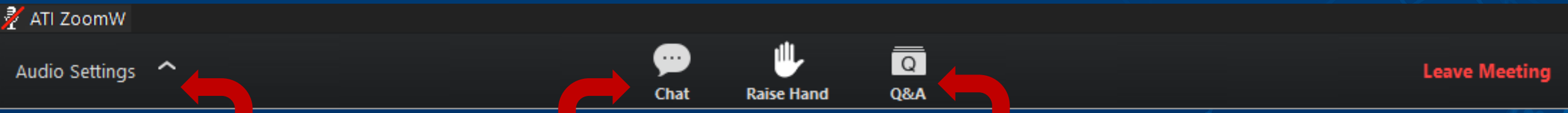
Dr. May Aydin
National Center for Science and Engineering Statistics (NCSES) Science Advisor

AMERICA'S DATAHUB CONSORTIUM

NSF | NCSES

Housekeeping Items:

- All Attendees are on mute and will not be able to unmute themselves
- Please use the “chat” function for technical difficulties only
- Place all Questions in the Q&A Box
- Please check your Audio Settings if you are having difficulties hearing us



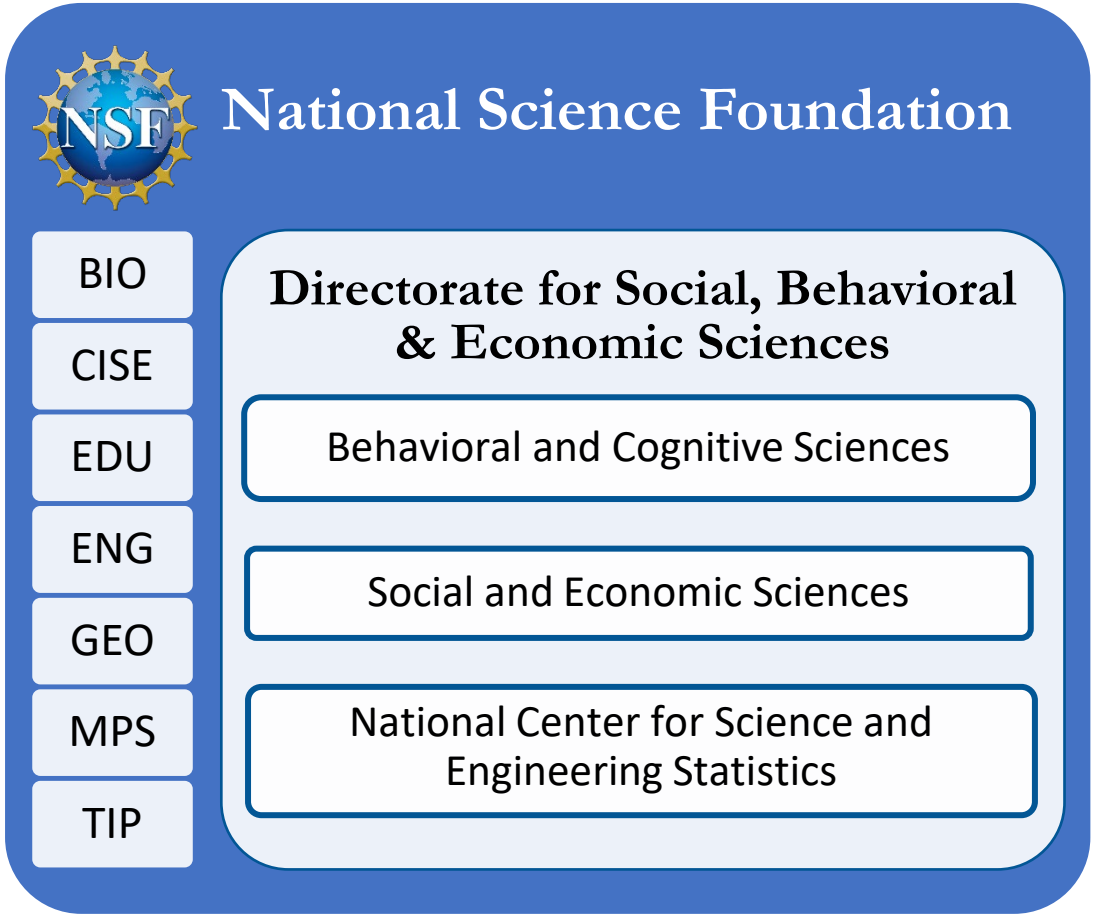
Check **Audio Settings** if you can’t hear us

Click **Chat** to or to ask for help.

Use **Q&A** for direct questions

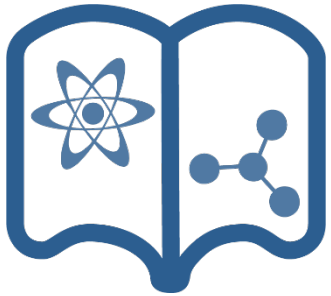
Background

Placed within NSF's SBE Directorate, NCSES is one of 13 principal federal statistical agencies



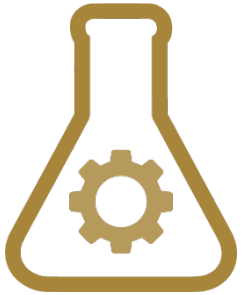
NCSES's mission is to serve as a federal clearinghouse for objective data that provide key insights into the S&E enterprise

Science & Engineering Workforce



STEM Education

Innovation & Global Competitiveness



Research & Development

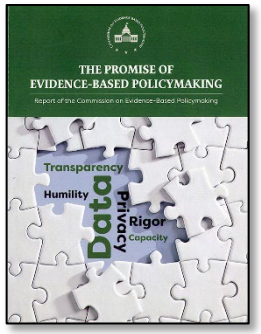
Government Funding for S&E

Higher Ed R&D

The idea of a transformational NSDS to coordinate data linking, secure access, and support innovation everywhere has a distinguished lineage

The pathway to the
NATIONAL SECURE DATA SERVICE

2016 | 2018 | 2020 | 2021 | 2022



Commission on Evidence-Based Policymaking

Foundations for Evidence-Based Policymaking Act of 2018

ACDEB
Advisory Committee on Data for Evidence Building

AMERICA'S DATAHUB CONSORTIUM

The CHIPS and Science Act

National Secure Data Service Demonstration Project

America's DataHub provides experiences to inform the development of the NSDS Demonstration (NSDS-D) Project

NSDS DEMONSTRATION PROJECT

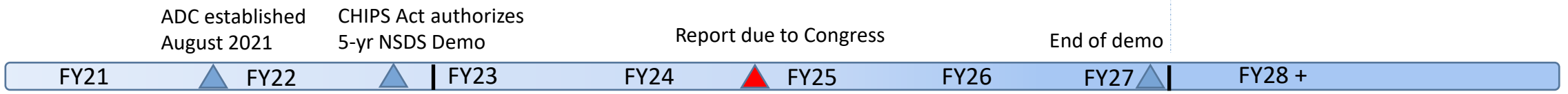
- NSDS-D Website
- Test NSDS features/ functions
- Validate shared-service operational model
- Broadened engagement and opportunities for innovation

CHIPS Act: Establish a demo project to develop, refine, and test models to inform the full implementation for a government-wide data linkage and access infrastructure for statistical activities conducted for statistical purposes.

AMERICA'S DATAHUB CONSORTIUM

- Flexible acquisition process & mechanisms for delivering services
- Broadened engagement and opportunities for innovation
- Agility to address emerging research topics

NSF Strategic Objective 4.1: Strengthen at Speed and Scale
Pursue innovative strategies to strengthen and expand the agency's capacity and capabilities.



Scope of the NSDS-D

To pilot potential shared services, technologies, and techniques that might be utilized within a potential NSDS.

Focus is on novel research collaborations, data linkage methodologies, and privacy preserving technologies and techniques.

Exploring innovation is key to the NSDS-D.

The NSDS-D is **NOT** a data warehouse.

Data will not be collected and housed under the demonstration project.

Development of a Prototype for the Standard Application Process Portal

AMERICA'S DATAHUB CONSORTIUM

Development of a Prototype for the Standard Application Process Portal – Objective

To develop multiple prototypes of an online portal that allows users to search for confidential data held by federal statistical agencies, apply for access to that data, and allows data providers to review those applications and render a decision.

An online portal does currently exist with some of the functionality described in this project. A future portal would expand the current product to allow for expansion to non-statistical and state agencies in the future as well as additional functionality and higher workloads.

Development of a Prototype for the Standard Application Process Portal

- The 2018 Foundations for Evidence-Based Policymaking Act, also referred to as the Evidence Act, requires that a standard application process (SAP) be developed for requests for confidential data from federal statistical agencies.
- This standard process includes a single point of entry for data requests, a single application, and a standard set of criteria used to evaluate each application.
- In order to operationalize this standard application process, an online portal is needed where data users can search for data and apply for access to that data.

This SAP portal is intended to serve as the 'front door' to apply for access to confidential data from 16 federal statistical agencies and units.

Development of a Prototype for the Standard Application Process Portal

This project requires the development of a prototype portal with the following functionality:

1. Ability for user to create an account
2. A metadata catalog with information about confidential data assets, including documents such as technical documentation. Should be easily searchable, viewable, and downloadable by all users.
3. An application that allows users to request access to confidential data. Must allow:
    a) Allows requests for multiple datasets per application;
    b) Users to indicate parameters for data selected, such as years or geographic area, based on available metadata.
    c) For skip patterns and upload of documents depending on specific criteria including but not limited to metadata fields, agency, and/or dataset selection;
    d) Allow for users to save their application, close and return;
    e) The ability to make changes to all fields, including datasets selected, after an application has been initiated;
    f) Print and/or download the application and its content.

Development of a Prototype for the Standard Application Process Portal, cont.

4. An application workflow that allows agency data owners to review applications requesting access to their data. Includes ability to:
    a) View an application within the system
    b) Download an application
    c) Record an approval or rejection of an application through the assessment of various criteria
    d) Prior to a final disposition, agencies must be able to request one or more revise and resubmits, requiring that the applicant make changes to the application before a determination is made.
5. Implementation of varying review periods depending on the data selected and reviews required.
6. Implementation of a notification system that informs both the applicant and the agency data owner of the submission of an application, key milestones in the application review process, and the remaining timing in review period.
7. Implementation of a reporting system with a dashboard that allows the derivation of key aggregate metrics associated with the portal usage (e.g., number of submitted applications, review determination aggregations, etc).

Development of a Prototype for the Standard Application Process Portal, cont.

Information Gaps

This project will identify:

- Options for development of an online portal to streamline data request applications for federal agency data assets.
- Options for presentation of a metadata catalog of federal agency data assets.
- Options for transferability and portability of a federal asset.

Key Evidence Building Considerations

- Key focus questions (address one or more) to assess innovation in the following areas: data acquisition, data security, and engagement:
  - How can the technological barriers to agency data requests be streamlined and/or overcome?
  - What types of collaboration and stakeholder engagement are needed to help inform these questions?

Data Usage Platform as a Federal Data Asset

AMERICA'S DATAHUB CONSORTIUM

Data Usage Platform as a Federal Data Asset – Objective

To research and develop a robust and sustainable framework that will enable the federal data ecosystem to better understand the uses of federal data in support of a potential, future National Secure Data Service (NSDS).

Related work includes the dashboard prototype efforts of the Democratizing Data Initiative, which promotes the use of federal data and assets for evidence building (https://democratizingdata.ai/).

This project will produce possibilities for a future, state-of-the- art, updatable publicly accessible platform that provides information on federal data usage as part of the National Secure Data Service demonstration project.

Data Usage Platform as a Federal Data Asset - Background

The Democratizing Data Initiative is a cross-agency, multidisciplinary effort to demonstrate the value of statistical data through aggregated usage statistics that are displayed on dashboards and for use in other tools.

- The Advisory Committee on Data for Evidence Building recommended the development and application of usage statistics to respond to the future needs of a National Secure Data Service (https://www.bea.gov/system/files/2022-10/acdeb-year-2-report.pdf).
- Building on prototype efforts, this project aims to explore alternative dashboard technologies, approaches, techniques, and methods to meet the sustainability and transparency needs of the federal statistical system and to inform the efforts of the National Secure Data Service Demonstration Project as required by the 2022 CHIPS and Science Act.

Data Usage Platform as a Federal Data Asset - Information Gaps

What is user feedback on the Democratizing Data pilot dashboards and tools? What information do users report is useful in the current dashboard and what additional information would be useful?

What open data software, data science, best practices, and other cutting-edge technologies can be used to generate aggregated usage data that meet the quality and sustainability requirements of federal agencies?

What additional types of federal data, features and functions of the dashboard or other interface are required to support evidence-building use cases for a wide variety of stakeholders, federal agencies, and consumers of federal statistics? Does this vary by sector, geographies, federal agencies, and user groups?

Do these usage statistics offer a vision for understanding the health and progress of the federal statistical system?

What are the resources required for flexibility, sustainability and scalability of the dashboard platform and related tools?

How can these usage data be leveraged in a profile to inform tiered data access needs, transparency priorities, and open data requirements for federal agencies?

How can these usage data be used as a shared service to inform public trust of official statistics, and engagement in a possible, future National Secure Data Service (NSDS)?

Data Usage Platform as a Federal Data Asset – Project Objectives

1. Identify sustainable, state of the art, updatable solutions, tools, or frameworks to ingest, aggregate and deploy usage statistics. Approaches may include but are not limited to data science techniques and tools such as machine learning and natural language processing.

2. Identify, interview, and document use cases across sectors and subgroups to ensure usability and accessibility of usage data for collaboration, evidence building, and other purposes.

3. Identify alternative data, formats, and tools (e.g. APIs) to present and complement usage data.

4. Develop, refine, and/or enhance dashboard interface, functions, and features to encourage use across various stakeholder communities.

Data Usage Platform as a Federal Data Asset – Project Objectives (continued)

5. Identify workflow processes and other mechanisms to ensure efficient, quality, timely and up-to-date usage data, and information.

6. Implement technologies, techniques, and processes to build a prototype dashboard platform and tools using publicly available federal data and information.

7. Identify approaches and best practices to implement data quality flags to communicate reliability and fitness for use of usage statistics.

8. Building on findings and lessons learned, advise on the integration of the platform and tools within the federal data ecosystem and possible, future NSDS.

Questions?

AMERICA'S DATAHUB
CONSORTIUM

Request for Solutions (RFS) Requirements

Ms. Rebecca Harmon
Senior Contracts Manager
Advanced Technology International (ATI), ADC Consortium Management Firm (CMF)

americasdatahub.org/opportunities

The official source of information regarding the solicitations is included in the Request for Solutions posted on the ADC website. If you act on information from other sources, it is at your risk.

AMERICA'S DATAHUB CONSORTIUM

NSF | NCSES

RFS Summary

Project Topics

- Each proposal must address ONE of the specific topic areas.
  - ➢ If you intend to respond to both, each RFS must be submitted separately.
- See Attachment 1 of each RFS for full topic description.

Anticipated Funding

- **SAP:** One or more awards anticipated, estimated at $500,000
- **DUP:** One or more awards anticipated, estimated at $3,000,000

Period of Performance

- **SAP:** Limited to twelve (12) months
- **DUP:** Limited to twenty-four (24) months

Two-Step Process

- Offerors will submit a whitepaper for evaluation.
- Following the submission of the whitepaper, the Government will provide feedback and invite select offerors to participate in the second step of the evaluation process by submitting a detailed technical and cost proposal.
- You do not need to be an ADC member to respond. However, if you're selected for award, you must join ADC (if not already a member).

Whitepaper Submission

- RFS Attachment 2 includes whitepaper format.
  - The content of the whitepaper should be generally consistent with the information to be provided in the full proposal.
    - Limited to **3 pages (excluding cover page)**.
    - 11-point font.
    - 1” margins, and 1.15 spacing.
    - Single-sided US-letter size pages.
  - Submit in Word format.
  - Submission forms:
    - SAP: https://atisc.formstack.com/forms/adc_sap_rfs
    - DUP: https://atisc.formstack.com/forms/adc_dup_rfs

Whitepaper Cover Page

- Working title of the proposed project.
- Names, phone numbers, mailing and e-mail addresses for the principal technical and contractual points of contact (person or persons authorized to negotiate on the behalf of the offeror and who can contractually obligate the offeror organization).
- Unique Entity ID (formerly DUNS) of the submitting organization (if available).
- Project partners, if any.
- Date of submission.
- Proprietary data restrictions, if any.

Whitepaper Sections

Project whitepapers shall include the following information:

- Summary Statement
- Context
- Scope of Work
- Evidence Building Outcomes and Dissemination Plan
- Project Team
- Unique Capabilities
- Schedule
- Intellectual Property Rights
- Rough Order of Magnitude (ROM)

Whitepaper Evaluation Criteria

- Whitepapers will be evaluated for overall technical value to the government's area of interest, within the context of available funding.
- The Government will consider the degree of the potential impact on the realization of ADC, NCSES, and project goals and the reasonableness of estimated costs for each whitepaper submitted.
- The Government will also consider the offeror's capability to perform the work based on the technical approach, background, and referenced resources provided in the whitepaper.

Whitepapers are not evaluated, or considered, as part of the full proposal evaluation process.

Whitepaper Submission Form

Offeror Information

Offeror Organization *

Offeror Address

Offeror City

Offeror State

Offeror Zip Code

Whitepaper Submission Form *(Continued)*

Are you currently a "Non-traditional Entity"? *

- [ ] Yes
- [ ] No

"Non-traditional entity" means an entity (construed in its broadest sense to include qualified large and small businesses, universities, non-profits, philanthropic organizations, partnerships, joint ventures, and other entity forms) that is not currently performing and has not performed, for at least the three-year period preceding the solicitation of sources by NSF for the procurement or arrangement, under any NSF procurement contract or NSF instrument of financial assistance.

Whitepaper Submission Form *(Continued)*

POC Information

Technical POC Name *

First Name

Last Name

Job Title *

Technical POC Email *

Technical POC Phone *

Is the Contracts POC the same as the Technical POC?

Whitepaper Submission Form *(Continued)*

Submission

Whitepaper Title *

Whitepaper Submittal

- ○ I prefer to upload the whitepaper to this form (attachment will be unencrypted)
- ○ I prefer to send the whitepaper via encrypted email to adc-contracts@ati.org (may be done before or after submitting this form)

Whitepaper Upload

Choose File | Remove File | No File Chosen

File names must not contain spaces or special characters

Additional Comments

Timeline

	Date (Estimate)
Request for Solutions Release	June 20
Webinar	June 21
Whitepaper Deadline	July 11 3PM ET
Offeror Notifications	July 18
Full Proposal Deadline	August 8 3PM ET
Award Projects	August 2023

Any deadline updates will be communicated via email.

ADC Member Teaming Resources

- ADC Member Profile Database*
  - Searchable by member demographics and capabilities, includes POC info for each member.
- Member Forum*
  - Post under the “SAP Solicitation” or “DUP Solicitation” Forum if you are interested in teaming or starting a discussion with other members.
- Need a teaming partner outside of ADC or other resources?
  - Email ati@govmates.com with who you are looking for.
  - More information is available at govmates.com/ati.

*Requires access to Members Only website. Request access here.

Not a member, but want to access these resources? Join today — it’s free!

Communications

RFS Questions: ADC-Contracts@ati.org

General/Membership Questions: adc@ati.org

Visit the ADC Website

Stay in the loop with ADC events, solicitations, project awards, news, members, and more!

www.americasdatahub.org

AMERICA'S DATAHUB CONSORTIUM

Questions?

AMERICA'S DATAHUB
CONSORTIUM