

Privacy Preserving Technologies

Privacy Preserving Technologies Phase 1 – Environmental Scan & Data Protection Toolkit Use Case Analysis Requests for Solutions

Dr. May Aydin

National Center for Science and Engineering Statistics (NCSES) Science Advisor

Dr. Heather Madray

NCSES, Program Director for Data Access, Confidentiality, and Quality Assessment (DACQA)

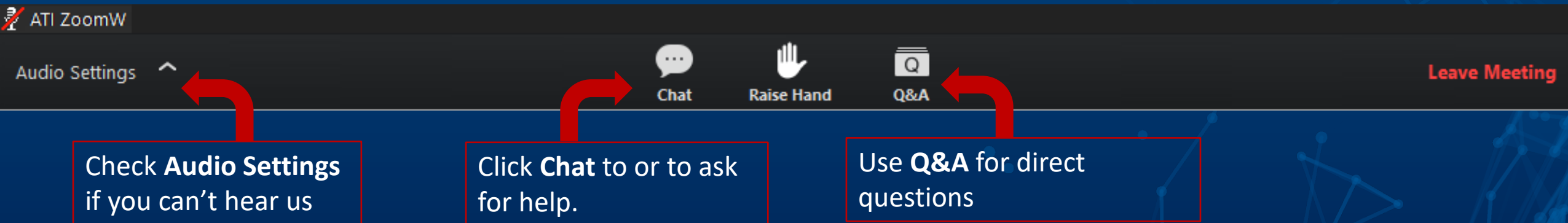


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Housekeeping Items:

- 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



A screenshot of a Zoom meeting toolbar with three red arrows pointing to specific icons and their corresponding instructions in white boxes. The toolbar includes icons for Audio Settings, Chat, Raise Hand, Q&A, and a red 'Leave Meeting' button. The background of the slide features a blue network diagram.

ATI ZoomW

Audio Settings ^

Chat

Raise Hand

Q&A

Leave Meeting

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

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

Use **Q&A** for direct questions



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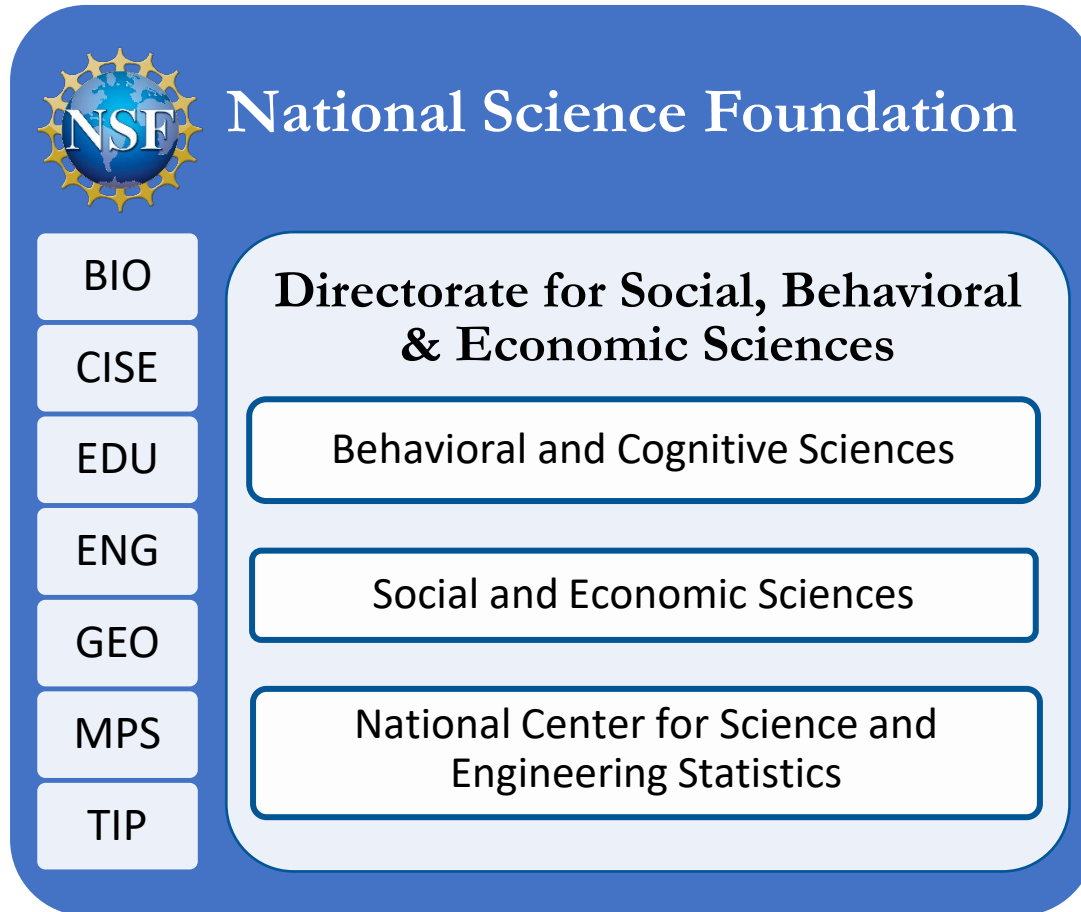
Background



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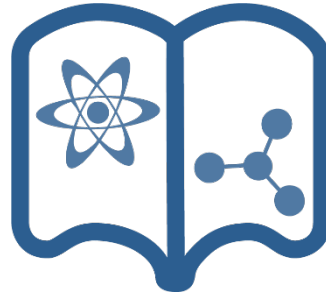
Placed within NSF's SBE Directorate, NCSES is one of 13 principal federal statistical agencies



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



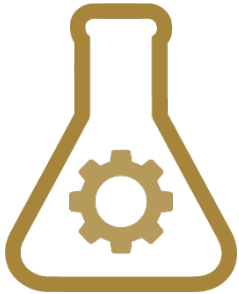
**Science & Engineering
Workforce**



STEM Education



**Innovation & Global
Competitiveness**



Research & Development



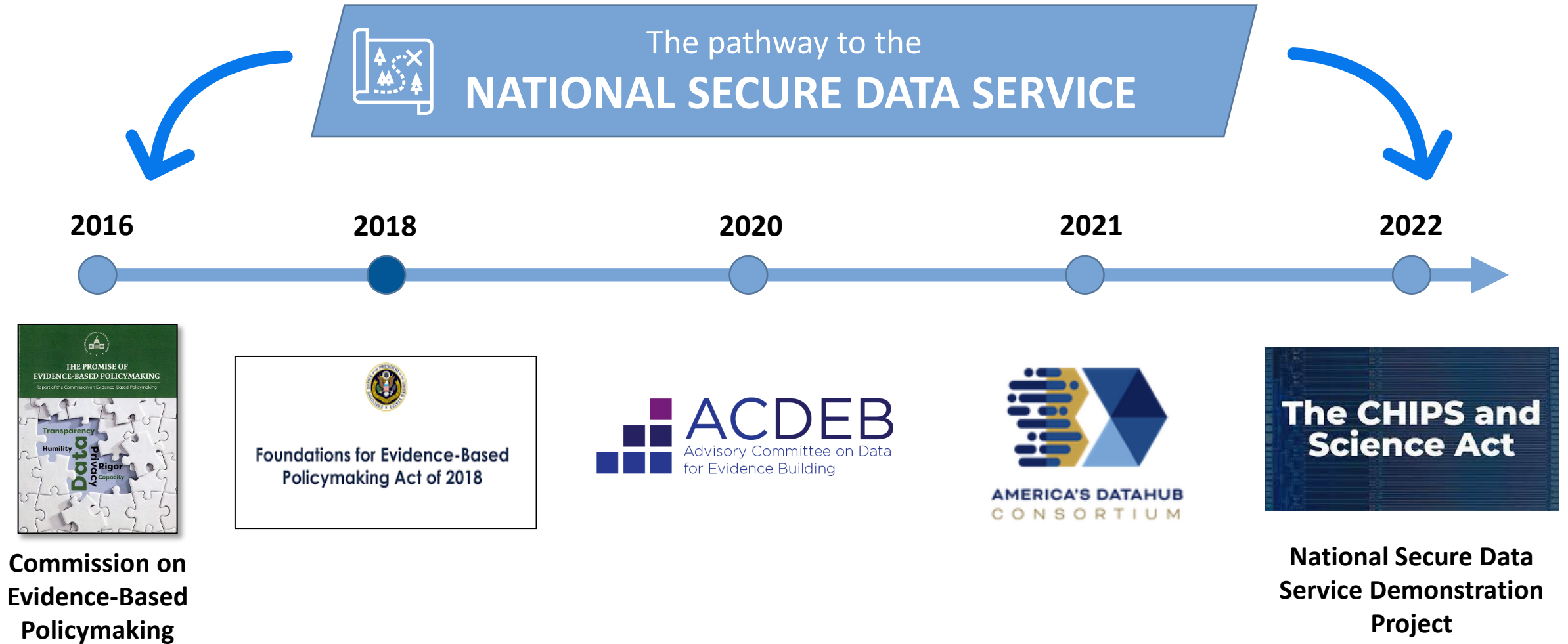
**Government Funding
for S&E**



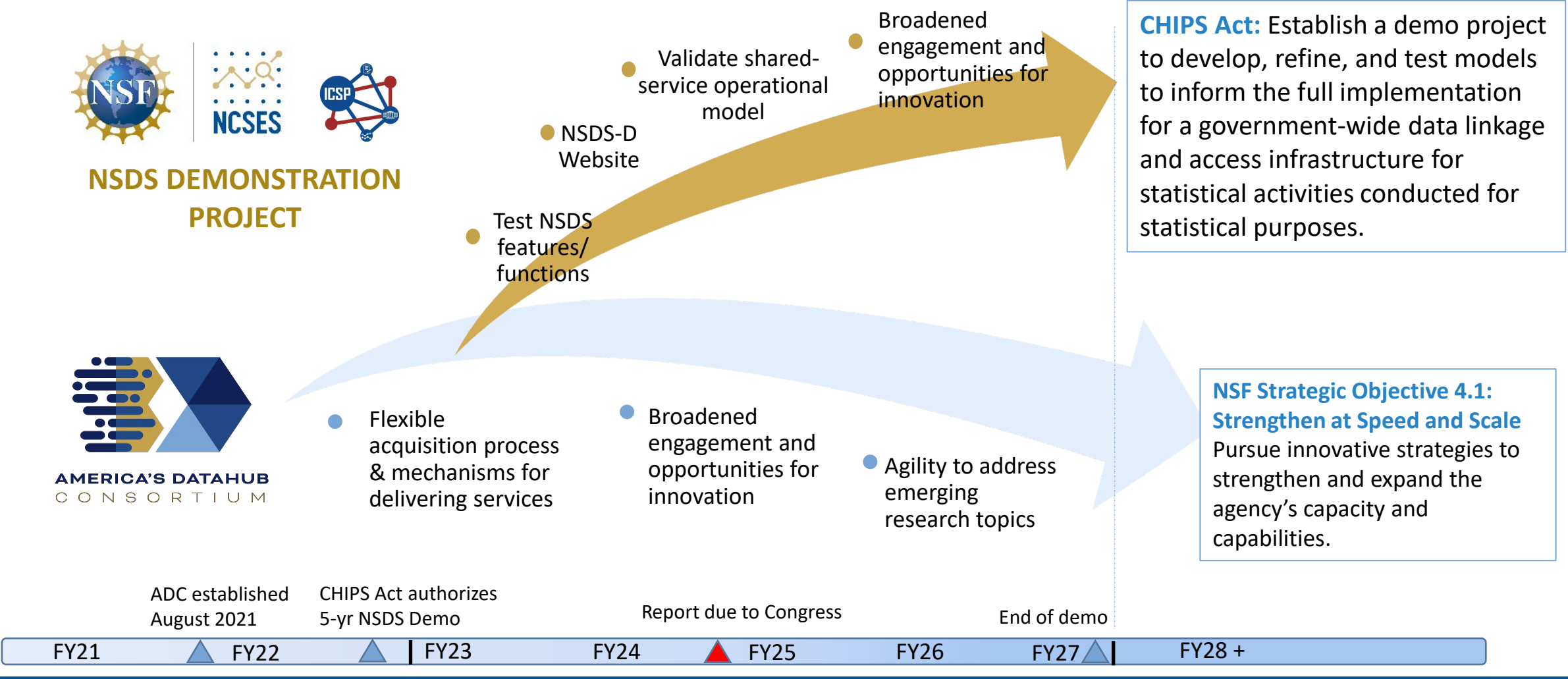
Higher Ed R&D



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



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



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.



Privacy Preserving Technologies



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Privacy Preserving Technology (PPT) Objectives

Phase 1 – PPT Environmental Scan: **Active Solicitation (RFS)**

- Compilation of pilots/projects currently testing or implementing PPT technologies throughout government, academia, and the private sector
- More than online search, includes stakeholder engagement to determine lessons learned, successes, barriers.

Phase 2 – PPT Pilots: **To Be Announced**

- Test one or more PPT on a topic area(s) (TBD), potentially using a “traditional” approach (such as tiered access) in tandem with the PPT, to test relative efficacy, accessibility, and feasibility.

Data Protection Toolkit (DPT) Use Case Analysis: **Active Solicitation (RFS)**

- Feedback from government, academia and the private sector on current DPT, recommendations for any enhancements

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Phase 1 – Environmental Scan



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Privacy Preserving Technologies (PPT) Phase 1 – Objective

To understand the current landscape of PPT for the protection of persons, data, and systems that contribute to the use of confidential data — including both individual-level and business data — for evidence-building and policymaking.



“PPT” includes technologies, techniques, methodologies, approaches, tools, and other like terms that relate to preserving privacy.



PPT Phase 1 - Environmental Scan

As demand for access to confidential federal data assets increases alongside novel analytical approaches, privacy protections must be in place to ensure the protection of privacy and the confidentiality of the data.

Privacy preserving technologies represent a means to reduce the disclosure risk when allowing access to confidential data, and balancing disclosure risk against the need for accurate, granular output that can be used for decision-making for public policy and programs.

This project is two-fold: The first phase provides an environmental scan of PPT currently being developed, tested, and utilized across environments and sectors. The second phase uses this information to pilot one or more of these PPT in a real-world research setting.



PPT Phase 1 - Environmental Scan *(Continued)*

Phase 1 will produce an overview of pilots and projects currently testing or implementing privacy preserving technologies throughout government, academia, and the private sector. The deliverable would focus on the topics below:

- What projects and pilots are currently testing or implementing (or have previously been done) privacy-preserving technologies, including but not limited to, secure multi-party computing (SMPC), synthetic data, differential privacy methodologies, homomorphic encryption, and validation servers?
- What lessons learned are available from using PPT, including what has worked/is working and under what contexts/purposes/various types of data users? What challenges or barriers have been discovered with PPT in using these technologies from the data provider and data user perspectives? What potential next steps are there in implementing these technologies?
- What do we know about how to evaluate whether a certain PPT is a good fit for a specific use case? What features of the data or users might indicate one PPT approach over another?
- What are best practices for effective communication strategies and/or user training on how to conduct research or program evaluation projects that leverage these new PPT?
- What use cases exist for each of these technologies when applied to evidence-building research, policymaking, and program evaluation?



Data Protection Toolkit Use Case Analysis



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Data Protection Toolkit (DPT) – Objective

To conduct a use case analysis of the Federal Committee on Statistical Methodology's Data Protection Toolkit.

This use case analysis would identify successful use cases and potential enhancements to the Toolkit for enabling access to federal data assets while protecting confidentiality.

The Data Protection Toolkit is located at nces.ed.gov/fcsm/dpt/.

DPT Use Case Analysis

The Data Protection Toolkit is a government-wide resource that builds on well-established expertise within the Federal Statistical System and makes content about protecting data while increasing access to others (such as privacy officials and chief data officers) for the first time.



DPT Use Case Analysis *(Continued)*

This project will identify:

- What feedback do users have on the Data Protection Toolkit? Does this vary by sector (government, academia, and the private sector), and different user groups within a sector (e.g., in the government, differentiating between statistical officials, statistical program staff at both statistical agencies and non-statistical agencies; CDOs, SAOPs, EOs)?
- Is the Toolkit being used and by whom? If so, how? What are the use cases?
- Are there future data users (not currently using the DPT) that could benefit from the DPT or need more tailored content for their needs (e.g., State and local government data users) or initial training to be able to effectively interact with and use the toolkit?
- Could the DPT benefit from user-centric choices, where the user needs are assessed broadly upfront to enable them to drill down to a subset of recommended tools within the larger, comprehensive toolkit?

DPT Use Case Analysis *(Continued)*

This project will identify:

- What elements of the Toolkit work well, or don't work well, with respect to access, usability, accessibility, and protections? Does this vary by type of user?
- Are there limitations to the Toolkit? If so, what are those limitations? Also, what are recommendations for future enhancements to address those limitations? Does this vary by type of user?
- How can a future National Secure Data Service (NSDS) as a shared service, envisioned by the CHIPS and Science Act and the Advisory Committee on Data for Evidence Building as described in their recent recommendations report, leverage the DPT to meet its goals? How can an NSDS improve the reach and usefulness of the DPT? Are there gaps that need to be addressed?



Questions?



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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.



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RFS Summary

Project Topics

- Each proposals 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

- **PPT Phase I:** One award anticipated, estimated between \$250,000 and \$300,000.
- **DPT:** One award anticipated, estimated between \$200,000 and \$250,000.

Period of Performance

- Limited to six (6) months for each project





One Step Process

- Offerors will submit a detailed technical and cost proposal for award evaluation.
- 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).



Full Proposal Submission

- RFS Attachment 2 includes format
 - Volume 1: Technical Proposal
 - Limited to **8 pages plus cover page.**
 - Volume 2: Cost Proposal
 - No page limit.
 - Submit in Word format.
 - Submission forms:
 - PPT Phase 1: atisc.formstack.com/forms/adc_ppt_phasei_rfs
 - DPT: atisc.formstack.com/forms/adc_dpt_rfs



Full Proposal 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 (formally DUNS number) of the submitting organization (if available).
- Project partners, if any.
- Date of submission.
- Proprietary data restrictions, if any.

Volume 1: Technical Proposal Content

- **Executive Summary**

- **Summary Statement:** Provide a succinct statement of the aim of the project and proposed approach. In most cases, the summary statement will be no longer than a paragraph.
- **Context:** Briefly describe the current state of information and/or research in the area.
- **Proposed Approach:** Describe the proposed approach. Offerors shall explain how the proposed approach will meet the objectives outlined in Attachment 1; result in or lead to a replicable framework that can be used to address similar issues; and inform other strategic priorities like the National Secure Data Service.



Volume 1: Technical Proposal Content *(Continued)*

- **Statement of Work**

- **Work Scope:** Describe the work to be accomplished as part of the project, organized as it is expected to be performed. Separate the work effort into major tasks and subtasks as numbered paragraphs or in a table.
- **Deliverables:** All project deliverables should be clearly listed and described.
- **Future Phases:** Proposals may include a discussion of optional, future phases of work. The original phase or work shall in no way depend on work described under future phases to meet the program criteria.
- ***There shall be no company-sensitive or proprietary data included in the Statement of Work.***



Volume 1: Technical Proposal Content *(Continued)*

- **Capabilities and Experience**
 - List all team members proposed for the project and indicate if they are a non-traditional entity as defined in the RFS.
 - List all key personnel, including those from outside the offeror's organization. Organize the team by organization name and briefly describe each person's roles and responsibilities on the project.
 - Identify and describe the capabilities and experience of key personnel and organizations as these elements relate to the proposed project.
 - Descriptions of experience should serve to demonstrate the key personnel's ability to successfully conduct the proposed research or project, including access to critical resources for the project.
 - Designate any supervisory relationships and who will be the main point of contact for regular check-ins with the NCSES methodological team during the project.
 - Provide condensed resumes (2-page maximum) for all key personnel on the project.

Volume 1: Technical Proposal Content *(Continued)*

- **Capabilities and Experience**

- In addition to key personnel, designate any graduate students or postdoctoral fellows funded by the proposed research. If named, provide no more than a half-page biographical sketch of their background and research interests. The biographical sketch should be included as part of the resume appendix and does not count against the page limit.
- Describe any unique capabilities that the offeror team possesses that may reduce project risk, reduce project duration, and/or improve project financial performance.
- Address any potential conflicts of interest and any proposed mitigation. In addition, complete and submit Exhibit 1 – Organizational Conflicts of Interest Certificate.



Volume 1: Technical Proposal Content *(Continued)*

- **Intellectual Property Rights**

- Describe any limitations on any intellectual property (patents, inventions, trade secrets, copyrights, or trademarks) that will impact the Offeror's performance of the contract or impact the Government's subsequent use of any deliverable under the contract.
- The Offeror must describe the intellectual property in sufficient detail to describe the limitations (data assertions of the Offeror or any subcontractor, potential patent licenses required by the Government, etc.), and to describe why or how the Government can accomplish the stated objectives of this RFS with the limitations described or proposed by the Offeror.



Volume 2: Cost Proposal Content

- **The Cost Proposal shall contain the following information:**
 - **Agreement Type:** It is anticipated the proposed efforts will be funded as firm-fixed-price. However, offerors may recommend an alternate approach (e.g., cost, cost-plus-fixed-fee, etc.) and include the rationale for their use. State either firm-fixed-price or provide rationale for an alternative approach.
 - **Cost Estimate:** The cost estimate shall be broken down for each year of the proposed work. The elements of cost and suggested level of detail are listed in the RFS. Contractor format for the cost estimate is acceptable.



Volume 2: Cost Proposal Content *(Continued)*

- **Program Funds**

- **Labor – Offeror only:** Provide a description of each labor category or person with associated labor rate and hours.
- **Travel – Offeror only:** Provide a list of the number of trips, number of days and travelers per trip, cost per trip, and the purpose of each trip.
- **Team Members/Subcontractors/Consultants:** Provide a list of each team member/subcontractor/consultant and their associated subcontract funding.
- **Material/Equipment – Offeror only:** Provide a list all items and provide justification and basis of cost for each (i.e., catalog pricing, vendor quote, previous purchase, etc.).
- **Other Direct Costs – Offeror Only:** Provide a list all items and provide justification and basis of cost for each (i.e., catalog pricing, vendor quote, previous purchase, etc.).
- **Indirect Costs – Offeror Only:** Provide a breakout of all indirect costs and indicate whether rates are Government approved, citing approval date and federal agency providing approval. If rates are not approved, provide an explanation on how your organization’s proposed rates are appropriate for pricing.
- **Profit/Fee:** Indicate any profit/fee.



Vol 2: Cost Proposal Content *(Continued)*

- **Cost Share (not required)**

- **Cash (labor, travel, etc.):** As applicable, provide a description of each labor category, details on travel, list of materials, etc.
- **In Kind (use of equipment, space/ buildings, intellectual property):** Must provide basis of cost.



Full Proposal Submission Form

Offeror Information

Offeror Organization *

Offeror Address

Offeror City

Offeror State

Offeror Zip Code



Full Proposal 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.



Full Proposal 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?

Full Proposal Submission Form *(Continued)*

Submission

Proposal Title *

Proposal Submittal

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

Volume I: Technical Proposal Upload

[Choose File](#) [Remove File](#) No File Chosen

File names must not contain spaces or special characters

Volume II: Cost Proposal Upload

[Choose File](#) [Remove File](#) No File Chosen

File names must not contain spaces or special characters

Additional Comments



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Full Proposal Evaluation Criteria

- **Technical**

- Approach – the degree to which the proposed project:
 - (i) meets the objectives outlined in (RFS) Attachment 1;
 - (ii) will result in or lead to a replicable framework that can be used to address similar issues; and
 - (iii) informs other strategic priorities like the National Secure Data Service.
- Teaming – The degree to which the proposed project includes a diverse team of qualified performers to include use of non-traditional entities. (See RFS for non-traditional definition)

- **Cost**

- The CMF will perform an analysis and will provide the results to the Government. This effort may entail the CMF requesting additional information from the Offeror.
- The Government will determine whether the Offeror's total evaluated cost/price is fair and reasonable.

The criteria are listed in order of relative importance.

Base Agreement



If selected for award, the Base Agreement must be signed at that time.



Any Project Agreements will be awarded under the Base Agreement.



Timeline

	Date (Estimate)
Request for Solutions Release	Apr 25
Webinar	Apr 28
Proposal Deadline	May 16, 3 PM ET
Offeror Notifications	Early June
Award Projects	Mid June

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 “PPT 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!



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Communications



RFS Questions: ADC-Contracts@ati.org



General/Membership Questions: adc@ati.org



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Questions?



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