NSF 25-534: Strengthening American Infrastructure (SAI)

Program Solicitation

Document Information

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U.S. National Science Foundation

Directorate for Social, Behavioral and Economic Sciences
Directorate for Biological Sciences
Directorate for Computer and Information Science and Engineering
Directorate for STEM Education
Directorate for Engineering
Directorate for Geosciences
Directorate for Mathematical and Physical Sciences
Office of Integrative Activities

Full Proposal Deadline(s) (due by 5 p.m. submitting organization's local time):

April 17, 2025

March 06, 2026

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Important Information And Revision Notes

This revision adds For-profit organizations and Tribal Nations to the types of organizations eligible to submit proposals.

Any proposal submitted in response to this solicitation should be submitted in accordance with the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) that is in effect for the relevant due date to which the proposal is being submitted. The NSF PAPPG is regularly revised and it is the responsibility of the proposer to ensure that the proposal meets the requirements specified in this solicitation and the applicable version of the PAPPG. Submitting a proposal prior to a specified deadline does not negate this requirement.

Summary Of Program Requirements

General Information

Program Title:

Strengthening American Infrastructure (SAI)

Synopsis of Program:

Strengthening American Infrastructure (SAI) is an NSF program seeking to stimulate human-centered, use-inspired, fundamental and potentially transformative research aimed at strengthening America's infrastructure. Effective infrastructure provides a strong foundation for socioeconomic vitality and broad improvement in quality of life. Robust, reliable and effective infrastructure spurs private-sector innovation, grows the economy, creates jobs, makes public-sector service provision more efficient, strengthens communities, promotes equal opportunity, protects the natural environment, enhances national security and fuels American leadership. Achieving these objectives requires the integration of expertise from across all science and engineering disciplines. SAI focuses on how fundamental knowledge about human reasoning and decision-making, governance, and social and cultural processes enables the building and maintenance of effective infrastructure that improves lives and society and builds on advances in technology and engineering. Successful projects will represent a convergence of expertise in one or more social, behavioral or economic sciences, deeply integrated with other disciplines to support substantial and potentially pathbreaking fundamental research applied to strengthening a specific focal infrastructure.

General inquiries regarding this funding opportunity should be sent to NSF-SAI@nsf.gov.

Broadening Participation In STEM:

NSF recognizes the unique lived experiences of individuals from communities that are underrepresented and/or underserved in science, technology, engineering, and mathematics (STEM) and the barriers to inclusion and access to STEM education and careers. NSF highly encourages the leadership, partnership, and contributions in all NSF opportunities of individuals who are members of such communities supported by NSF. This includes leading and designing STEM research and education proposals for funding; serving as peer reviewers, advisory committee members, and/or committee of visitor members; and serving as NSF leadership, program, and/or administrative staff. NSF also highly encourages demographically diverse institutions of higher education (IHEs) to lead, partner, and contribute to NSF opportunities on behalf of their research and education communities. NSF expects that all individuals, including those who are members of groups that are underrepresented and/or underserved in STEM, are treated equitably and inclusively in the Foundation's proposal and award process.

NSF encourages IHEs that enroll, educate, graduate, and employ individuals who are members of groups underrepresented and/or underserved in STEM education programs and careers to lead, partner, and contribute to NSF opportunities, including leading and designing STEM research and education proposals for funding. Such IHEs include, but may not be limited to, community colleges and two-year institutions, mission-based institutions such as Historically Black Colleges and Universities (HBCUs), Tribal Colleges and Universities (TCUs), women's colleges, and institutions that primarily serve persons with disabilities, as well as institutions defined by enrollment such as Predominantly Undergraduate Institutions (PUIs), Minority-Serving Institutions (MSIs), and Hispanic Serving Institutions (HSIs).

"Broadening participation in STEM" is the comprehensive phrase used by NSF to refer to the Foundation's goal of increasing the representation and diversity of individuals, organizations, and geographic regions that contribute to STEM teaching, research, and innovation. To broaden participation in STEM, it is necessary to address issues of equity, inclusion, and access in STEM education, training, and careers. Whereas all NSF programs might support broadening participation components, some programs primarily focus on supporting broadening participation research and projects. Examples can be found on the NSF Broadening Participation in STEM website.

Cognizant Program Officer(s):

Please note that the following information is current at the time of publishing. See program website for any updates to the points of contact.

- Jeremy Koster, telephone: (703) 292-8740, email: jkoster@nsf.gov

- Joseph M. Whitmeyer, SBE, SBE/SES, telephone: (703) 292-7808, email: jwhitmey@nsf.gov

- Thomas Evans, SBE, telephone: (703) 292-4891, email: tevans@nsf.gov

- May Yuan, SBE, telephone: (703) 292-2206, email: mayuan@nsf.gov

- Claudia Gonzalez-Vallejo, SBE, telephone: (703) 292-4710, email: clagonza@nsf.gov

- Christine Leuenberger, SBE, telephone: (703) 292-7563, email: cleuenbe@nsf.gov

- Sara Kiesler, SBE, telephone: (703) 292-8643, email: skiesler@nsf.gov

- Michael Ford, EDU, telephone: (703) 292-5153, email: miford@nsf.gov

- Randy L. Phelps, OIA, telephone: (703) 292-5049, email: rphelps@nsf.gov

- Reed S. Beaman, BIO, telephone: (703) 292-7163, email: rsbeaman@nsf.gov

- Laura Lautz, GEO, telephone: (703) 292-7775, email: llautz@nsf.gov

- Giovanna Biscontin, ENG, telephone: (703) 292-2339, email: gibiscon@nsf.gov

- Thomas Martin, CISE, telephone: (703) 292-2170, email: tmartin@nsf.gov

- Bogdan Mihaila, MPS, telephone: (703) 292-8235, email: bmihaila@nsf.gov

Applicable Catalog of Federal Domestic Assistance (CFDA) Number(s):

- 47.041 --- Engineering
- 47.049 --- Mathematical and Physical Sciences
- 47.050 --- Geosciences
- 47.070 --- Computer and Information Science and Engineering
- 47.074 --- Biological Sciences
- 47.075 --- Social Behavioral and Economic Sciences
- 47.076 --- STEM Education
- 47.083 --- Office of Integrative Activities (OIA)

Award Information

Anticipated Type of Award: Standard Grant

Estimated Number of Awards: 15

The number of awards is dependent upon the proposals received and the degree to which proposals meet the solicitation goals and NSF merit review criteria.

Anticipated Funding Amount: $9,600,000

Up to $9.6 million pending the availability of funds and quality of proposals.

Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Institutions of Higher Education (IHEs): Two- and four-year IHEs (including community colleges) accredited in, and having a campus located in the US, acting on behalf of their faculty members. Special Instructions for International Branch Campuses of US IHEs: If the proposal includes funding to be provided to an international branch campus of a US institution of higher education (including through use of sub-awards and consultant arrangements), the proposer must explain the benefit(s) to the project of performance at the international branch campus, and justify why the project activities cannot be performed at the US campus.
- Non-profit, non-academic organizations: Independent museums, observatories, research laboratories, professional societies and similar organizations located in the U.S. that are directly associated with educational or research activities.
- For-profit organizations: U.S.-based commercial organizations, including small businesses, with strong capabilities in scientific or engineering research or education and a passion for innovation.
- Tribal Nations: An American Indian or Alaska Native tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges as a federally recognized tribe pursuant to the Federally Recognized Indian Tribe List Act of 1994, 25 U.S.C. §§ 5130-5131.

Who May Serve as PI:

PIs must hold appointments at U.S.-based campuses/offices of eligible organizations (IHEs, Non-profit, non-academic organizations, For-profit organizations, Tribal Nations). There are no restrictions on who may serve as co-PIs, Senior/Key Personnel, or Consultant.

Limit on Number of Proposals per Organization:

There are no restrictions or limits.

Limit on Number of Proposals per PI or co-PI: 1

An individual may appear as PI, co-PI, senior/key personnel or consultant on only one proposal submitted per annual deadline. This eligibility constraint will be strictly enforced. In the event an individual exceeds this limit, the first proposal received prior to the deadline will be accepted and the remainder will be returned without review. This limitation includes proposals submitted by a lead organization, collaborative non-lead proposals, and any subawards included as part of a collaborative proposal involving multiple organizations. No exceptions will be made.

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **Letters of Intent:** Not required

- **Preliminary Proposal Submission:** Not required

- **Full Proposals:**

    - Full Proposals submitted via Research.gov: *NSF Proposal and Award Policies and Procedures Guide* (PAPPG) guidelines apply. The complete text of the PAPPG is available electronically on the NSF website at: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg.

    - Full Proposals submitted via Grants.gov: *NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov* guidelines apply (Note: The *NSF Grants.gov Application Guide* is available on the Grants.gov website and on the NSF website at: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide).

B. Budgetary Information

- **Cost Sharing Requirements:**

    Inclusion of voluntary committed cost sharing is prohibited.

- **Indirect Cost (F&A) Limitations:**

    Not Applicable

- **Other Budgetary Limitations:**

    Not Applicable

C. Due Dates

- **Full Proposal Deadline(s)** (due by 5 p.m. submitting organization's local time):

    April 17, 2025

    March 06, 2026

Proposal Review Information Criteria

Merit Review Criteria:

National Science Board approved criteria apply.

Award Administration Information

Award Conditions:

Additional award conditions apply. Please see the full text of this solicitation for further information.

Reporting Requirements:

Standard NSF reporting requirements apply.

I. Introduction

Robust, reliable and effective infrastructure spurs private-sector innovation, grows the economy, creates jobs, makes public-sector service provision more efficient, strengthens communities, promotes equal opportunity, protects the natural environment, enhances national security and fuels American leadership. In recent years, NSF has been increasing its support for Strengthening American Infrastructure (SAI), seeking to stimulate fundamental, exploratory, potentially transformative, human-centered and use-inspired research aimed at strengthening America's infrastructure. These activities specifically encouraged connections from across science and engineering disciplines, with a special focus on how basic knowledge of human reasoning, decision-making, governance, and social and cultural processes enables efforts to envision, build and maintain effective infrastructure that improves lives.

The aim of this solicitation is to invite novel and potentially transformative research that continues to contribute to the goal of strengthening American infrastructure and building the associated research community.

II. Program Description

A. Overview

People rely on critical infrastructure to support and enable almost everything they do, including infrastructure that supports transportation, water, power, information technology, ecosystems, education, healthcare and emergency response systems. Businesses rely on critical infrastructure to ensure their security, protect their assets and communicate with suppliers and customers. Cities, towns and rural and tribal areas rely on extensive networks of built and civic infrastructure. Scientific progress depends on a substantial research ecosystem infrastructure, including advanced technologies and instrumentation. Robust, effective infrastructure stimulates innovation and job growth and enables discovery and generation of new knowledge. It also provides safety and security, improves quality of life and facilitates community welfare for all people for many years into the future. Utilizing a socio-ecological framework in the development of sustainable, resilient and equitable infrastructure can help address many urban and climatic challenges.

Many infrastructure projects entail extensive planning and large initial costs. Those substantial investments are worthwhile to the extent they provide long-term benefits and meet the needs of all people for a range of functions. Building such effective infrastructure requires a deep understanding of economic and social dynamics and the perceptions and choices of many diverse individuals and communities. Whether involving transportation, energy, broadband, water, security, housing, forestry, agriculture, food supply, banking, health, education, communication or other essential services, infrastructure design that puts people and social welfare first is more likely to gain public support, function more effectively and serve more people.

The large costs and potentially large benefits of infrastructure investments mean that it is essential for those who build or maintain infrastructure to understand and incorporate relevant human and social factors in the earliest stages of design. For example, transportation infrastructure to support automated vehicles will require advanced knowledge of economic and social structural influences on people's transportation needs and choices, as well as human perceptual and cognitive responses in a wide range of critical decision-making and task-switching scenarios. Infrastructure developed to expand economic opportunity is likely to be more effective if it builds on recent evidence concerning human social biases, as well

as discoveries regarding how social structures affect opportunity across groups. Infrastructure designed to increase the speed and effectiveness of disaster response will work more effectively if its design is informed by the often complex cultural and human trust contingencies and differences in group access to response resources. Healthcare and other public infrastructure that relies on the provision of fast and accurate information will be more effective when built from a knowledge base that includes the dynamics of how people process information and how cognitive processing changes under stress. How people interact with built and natural environments is critical to understanding consequences of and design choices for large-scale infrastructure projects such as highways, dams, levees or managed ecosystems such as watersheds, forests and fisheries.

NSF seeks to build research capacity that can address these and many other challenging infrastructure contexts that require a human- and social-centered research approach. This solicitation offers support for research projects that will bring together experts from one or more of the social, behavioral and economic (SBE) science disciplines with experts across other scientific and engineering disciplines to support substantial and potentially pathbreaking and use-inspired fundamental research that will help to strengthen American infrastructure.

Submitted projects must be organized around social, behavioral or economic science concepts and offer the potential to substantially improve, strengthen and transform the design, development, use, deployment, cost-effectiveness, sustainability and maintenance of American infrastructure. The social, behavioral and economic sciences bring substantial expertise and insight to the design and implementation of infrastructure, including basic understanding of barriers to equitable participation, uneven societal impacts, open access to information and data, health disparities, and other human and societal dimensions that interact with the needs for and benefits provided by infrastructure.

Proposals must bring deep leadership expertise in at least one SBE disciplinary program area, and provide details on how such SBE disciplinary expertise and leadership will contribute to strengthening American infrastructure. Proposals must also bring relevant expertise in the focal infrastructure itself, which is likely to be in one or more research areas represented in the programs supported by the participating NSF directorates and offices:

- Biological Sciences (BIO)
- Computer and Information Science and Engineering (CISE)
- STEM Education (EDU)
- Engineering (ENG)
- Geosciences (GEO)
- Mathematical and Physical Sciences (MPS)
- Office of Integrated Activities (OIA)

Proposals must describe how this diverse expertise will be deeply integrated and applied to the specific infrastructure that is the focus of the proposed research. Successful proposals will demonstrate an interdisciplinary and convergent approach beyond that of any single NSF program, division or directorate and will seek to advance both the SBE fields as well as the partnering fields in which they are based.

For the purpose of this solicitation, the focal infrastructure of the proposed research may be of any kind, including, for example, physical, cyber, social, economic, biological, technological or educational. However, the proposal must identify a specific, focal and well-defined infrastructure. Proposals must be led by and build on a deep understanding of at least one SBE science relevant to the design, development or sustainability of the focal infrastructure. These sciences may include those of psychology, learning, linguistics, anthropology, geography, network science, sociology, economics, decision science, organizational behavior, science and technology studies, law and science, governmental structures and other areas of basic SBE science supported in the disciplinary programs of the SBE directorate.

Proposals are encouraged to consider modeling approaches of both the underlying human and/or social processes and the identified infrastructure. Quantitative and predictive models can be used to compare alternative infrastructure approaches, as well as to advance improved dynamical systems. Proposals must also include expertise in the focal infrastructure itself along with relevant areas of research supported by at least one of the other participating directorates

or offices listed at the top of the solicitation. The long-term aim of proposed research should be to understand how to better develop, design, build, rehabilitate and maintain robust and effective American infrastructure, and not solely on the social, behavioral or economic impacts of infrastructure.

Proposals that include development of new or improved performance metrics that can help stakeholders more effectively and efficiently assess infrastructure usability, cost-effectiveness, sustainability, resilience or adaptability to changing circumstances are also encouraged.

NSF welcomes and encourages proposals that include efforts to broaden participation of historically underrepresented groups in STEM and underrepresented regions in the development and conduct of the research. Proposals from Minority Serving Institutions (MSIs) and Emerging Research Institutions (ERIs as defined in the CHIPS and Science Act of 2022) are highly encouraged, as are opportunities for participation by undergraduate and graduate students and postdoctoral fellows, K-12 students, industry stakeholders and others. Public-private partnerships can also be proposed.

Proposals should focus on infrastructure that produces broad societal impact, such as infrastructure that supports, for example, transportation (including public access, roads and vehicles), energy (including electricity, gas, solar and renewable), water and water management (including storms and floods), informatics and computing technology, national security infrastructure, built environments, and infrastructure supporting conservation and commerce. Areas that present the greatest societal challenges are of special interest, including equitable access to and benefit from infrastructure, sustainability, climate impact and disaster mitigation, economic resilience, emerging technologies, and future safety, productivity and security for all citizens.

SAI research proposals will provide leadership from one or more SBE disciplinary perspectives integrated with areas supported by one or more other NSF directorate or office listed at the top of this solicitation in addressing the design, development and sustainability of a specific focal infrastructure. These projects must advance a fundamental understanding of how a human-centered approach will support and strengthen American infrastructure. Pursuing a convergent research approach, projects should apply knowledge, techniques and expertise from multiple fields and sectors to create new frameworks and expand existing frameworks for addressing the research goals. Each proposal should describe the symbiosis within the interdisciplinary team, including stakeholders in the infrastructure context and how the team will collaborate. Proposals should aim to advance understanding of how to improve and strengthen American infrastructure and not merely the human and societal impacts of infrastructure. Projects will advance the basic science and engineering supporting improved infrastructure planning, development and implementation. They may also include tests or demonstrations of feasibility with infrastructure stakeholders and testbeds.

SAI research awards will provide support for a period of up to three years and with a total overall (three-year) budget not exceeding $750,000.

B. Proposal Components

In addition to the guidance specified in the [PAPPG](#), including the requirement for a separate section labeled "Broader Impacts", the project description must include the following separate sections, each clearly labeled with the headings used below:

Focal Infrastructure
The focal infrastructure of the proposed research may be of any kind, including, for example physical, cyber, social, economic, biological, technological or educational. The proposal must identify a specific and well-defined focal infrastructure. Examples include, but are not limited to, the electric grid, coastal flooding mitigation, electric vehicles, dams, pipelines, bridges, roads, emergency response systems, building construction, watershed management, communication networks and broadband, healthcare and medical technology, banking, voting technology, and manufacturing systems. Proposals can also emphasize how quantitative and predictive modeling of a specific infrastructure can be improved by a human-centered approach. Proposals that focus on infrastructure generically or abstractly will be less competitive than those that focus on a very specific and well-defined infrastructure.

Integrative Research
Proposals must be led by and build on a deep understanding of at least one SBE science relevant to the design,

development and sustainability of the focal infrastructure. This section of the proposal must explicitly identify these sciences, which may include psychology, learning, linguistics, anthropology, geography, network science, sociology, economics, decision science, organizational behavior, science and technology studies, law and science, governmental structures and other areas of basic SBE science supported in the [disciplinary programs of the SBE directorate](#). This section of the proposal should explain how the project is centered in and led by these areas of SBE science and who among the proposed leadership team brings that expertise. Proposals must also include expertise in the focal infrastructure and in areas of research supported by at least one of the other participating directorates or offices listed at the top of this solicitation. This section of the proposal should identify those specific areas by listing NSF programs that support disciplinary research in related areas.

Researchers from diverse fields are expected to work using a [convergent approach](#), creating shared visions, models, methods and discoveries. The "Integrative Research" section must describe how knowledge, techniques and expertise from multiple fields and sectors will create new insights into how to strengthen American infrastructure. This section of the proposal should describe the intellectual and methodological symbiosis within the multidisciplinary team and how the team will collaborate to illuminate the technological, human and larger societal dimensions of strengthening American infrastructure. The "Integrative Research" section must identify how the expertise of different members of the team will enable cross-discipline and cross-sector integration within the team and describe how the research will be integrated over the course of the project in support of a convergent approach.

Access and Inclusion
Access and inclusion are high priority goals of this program. All proposals must therefore include an "Access and Inclusion" section that describes how the proposed project will address societal inclusion and equity relating to the focal infrastructure itself in a meaningful way. Depending on the project, this section might address deeper understanding of issues leading to unequal access to or impacts of infrastructure, methods for mitigation of inequity, or designs of infrastructure that support access and inclusion. This section of the proposal must identify the relevant expertise represented on the proposing team for addressing infrastructure access and inclusion. Note that this section of the proposal may be related to but should be distinct from discussion of broader impacts (which must be described in a separate labeled section of the project description, as required by the PAPPG).

Stakeholder Engagement
The long-term focus of proposed research should be on how infrastructure is designed and deployed and not solely on the social, behavioral or economic impacts of infrastructure. All proposals must therefore identify stakeholders involved in the design and deployment of infrastructure, including private sector organizations, government agencies or community groups. This section of the proposal should address plans for engagement with those relevant stakeholders and how those stakeholders might participate in the design, testing and implementation of research-inspired changes to and improvement of infrastructure. In this context, consideration should be given to the ways in which the proposed research supports approaches that advance sustainability and limit negative environmental impacts.

Proposals emphasizing transition-to-practice are also encouraged. Such proposals can include piloting or prototyping of research results in addition to a standard research proposal or as a primary proposal focus.

C. Principal Investigator Meetings

To accelerate the rate of dissemination of ideas among researchers, to build an intellectual research core to address SAI human-centered infrastructure research challenges, and to enable enhanced research collaborations, the SAI program plans to host principal investigator (PI/co-PI) meetings every year with participation from all funded projects along with other representatives from academia, industry, government and community organizations. PIs of SAI-funded projects must participate in these PI/co-PI meetings throughout the duration of the award. For multi-organizational projects, investigators from each collaborating organization are expected to participate. A substitute project representative may be designated to attend a PI/co-PI meeting, but only with prior approval from an NSF program officer. Budgets for all projects should include sufficient funding for one or more designated SAI project representatives (PI/co-PI/senior personnel or NSF-approved replacement) to attend each SAI PI/co-PI meeting during the proposed lifetime of the award. For budget preparation purposes, PIs should assume these meetings will be held in person in the Washington, DC, area.

III. Award Information

Anticipated Type of Award: Standard Grant

Estimated Number of Awards: 15

The number of awards is dependent upon the proposals received and the degree to which proposals meet the solicitation goals and NSF merit review criteria.

Anticipated Funding Amount: Up to $9.6 million pending the availability of funds and quality of proposals.

IV. Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Institutions of Higher Education (IHEs): Two- and four-year IHEs (including community colleges) accredited in, and having a campus located in the US, acting on behalf of their faculty members. Special Instructions for International Branch Campuses of US IHEs: If the proposal includes funding to be provided to an international branch campus of a US institution of higher education (including through use of sub-awards and consultant arrangements), the proposer must explain the benefit(s) to the project of performance at the international branch campus, and justify why the project activities cannot be performed at the US campus.
- Non-profit, non-academic organizations: Independent museums, observatories, research laboratories, professional societies and similar organizations located in the U.S. that are directly associated with educational or research activities.
- For-profit organizations: U.S.-based commercial organizations, including small businesses, with strong capabilities in scientific or engineering research or education and a passion for innovation.
- Tribal Nations: An American Indian or Alaska Native tribe, band, nation, pueblo, village, or community that the Secretary of the Interior acknowledges as a federally recognized tribe pursuant to the Federally Recognized Indian Tribe List Act of 1994, 25 U.S.C. §§ 5130-5131.

Who May Serve as PI:

PIs must hold appointments at U.S.-based campuses/offices of eligible organizations (IHEs, Non-profit, non-academic organizations, For-profit organizations, Tribal Nations). There are no restrictions on who may serve as co-PIs, Senior/Key Personnel, or Consultant.

Limit on Number of Proposals per Organization:

There are no restrictions or limits.

Limit on Number of Proposals per PI or co-PI: 1

An individual may appear as PI, co-PI, senior/key personnel or consultant on only one proposal submitted per annual deadline. This eligibility constraint will be strictly enforced. In the event an individual exceeds this limit, the first proposal received prior to the deadline will be accepted and the remainder will be returned without review. This limitation includes proposals submitted by a lead organization, collaborative non-lead proposals, and any subawards included as part of a collaborative proposal involving multiple organizations. No exceptions will be made.

V. Proposal Preparation And Submission Instructions

A. Proposal Preparation Instructions

Full Proposal Preparation Instructions: Proposers may opt to submit proposals in response to this Program Solicitation via Research.gov or Grants.gov.

- Full Proposals submitted via Research.gov: Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the general guidelines contained in the *NSF Proposal and Award Policies and Procedures Guide* (PAPPG). The complete text of the PAPPG is available electronically on the NSF website at: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg. Paper copies of the PAPPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov. The Prepare New Proposal setup will prompt you for the program solicitation number.

- Full proposals submitted via Grants.gov: Proposals submitted in response to this program solicitation via Grants.gov should be prepared and submitted in accordance with the *NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov*. The complete text of the *NSF Grants.gov Application Guide* is available on the Grants.gov website and on the NSF website at: (https://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide). To obtain copies of the Application Guide and Application Forms Package, click on the Apply tab on the Grants.gov site, then click on the Apply Step 1: Download a Grant Application Package and Application Instructions link and enter the funding opportunity number, (the program solicitation number without the NSF prefix) and press the Download Package button. Paper copies of the Grants.gov Application Guide also may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov.

In determining which method to utilize in the electronic preparation and submission of the proposal, please note the following:

Collaborative Proposals. All collaborative proposals submitted as separate submissions from multiple organizations must be submitted via Research.gov. PAPPG Chapter II.E.3 provides additional information on collaborative proposals.

See PAPPG Chapter II.D.2 for guidance on the required sections of a full research proposal submitted to NSF. Please note that the proposal preparation instructions provided in this program solicitation may deviate from the PAPPG instructions.

The following information supplements the guidelines and requirements in the NSF PAPPG and NSF Grants.gov Application guide:

Special instructions for submitting to this solicitation:
All proposals must be submitted to SBE/SAI; once received, the proposals will be managed by a cross-disciplinary, cross-directorate team of NSF program directors.

Proposal Title:
The title of the proposal must begin with "SAI:".

Project Description:
Project descriptions are limited to 15 pages in length.

In addition to the guidance specified in the PAPPG, including the requirement for a separate section labeled "Broader Impacts," the project description must contain the following separate sections, clearly labeled with the headings used below, with content as described in Section II.B of this solicitation:

- Focal Infrastructure
- Integrative Research
- Access and Inclusion
- Stakeholder Engagement

In addition, the project description should explain why the level of resources requested is appropriate to the project scope. Budget requests are reviewed carefully at all stages of the evaluation process, and proposals with budgets that are justified and appropriate to the scope of the project are prioritized.

The SAI program welcomes proposed activities aimed at broadening participation, such as providing undergraduate students and those historically underrepresented in STEM disciplines with meaningful research experiences. The project description should describe these activities, and the budget should request funds sufficient to carry them out.

Post-award supplements to support such activities are not anticipated.

Data Management and Sharing Plan:
All proposals must include a data management and sharing plan (DMSP) or explain the absence of the need for such a plan. A DMSP specifies the procedures to be used for keeping, storing and sharing data and other research materials with others in a manner that is consistent with best practices in open science. NSF's Public Access Plan (23-104) may be consulted for guidance on best practices in open science. The DMSP will be reviewed as part of the intellectual merit or broader impacts of the proposal, or both, as appropriate. See Chapter II.D.2 of the PAPPG for further information about the implementation of this requirement. For directorate-specific guidance on DMSPs see NSF's page on Dissemination and Sharing of Research Results and NSF Data Management Plan Requirements.

Supplementary Documents:
Required supplementary documents are listed below. No other supplementary materials are allowed. Proposals that do not contain all specified supplementary documents will be returned without review.

- List of Project Personnel and Partner Organizations. Provide current, accurate information for all personnel and organizations involved in the project. NSF staff will use this information in the merit review process to manage reviewer selection. The list must include all PIs, co-PIs, senior/key personnel, funded and unfunded consultants or collaborators, subawardees, postdocs and project-level advisory committee members. This list should be numbered and include (in this order) full name, organization(s) and role in the project, with each item separated by a semi-colon. Each person listed should start a new numbered line. For example:

  Mei Lin; XYZ University; PI

  Jak Jabes; University of PQR; Senior/Key Personnel

  Jane Brown; XYZ University; Postdoc

  Rakel Ademas; ABC Inc.; Funded Consultant

  Mary Wan; Welldone Institution; Unfunded Collaborator

  Rimon Greene; ZZZ University; Subawardee

- Management and Coordination Plan (2-page limit). The SAI program aims for convergence, in which knowledge, techniques and expertise from multiple fields and sectors create new and expanded frameworks for addressing the research goals. Such integration and impact require extra effort in leadership, regular communication and cross-training. Therefore, a "Management and Coordination Plan" must be submitted as a supplementary document and may not exceed two pages. The document must be labeled "Management and Coordination Plan." The plan must describe specific steps the project team plans to take to achieve the goal of convergent research. This includes specifying which team members are responsible for which parts of the planned project, how the team plans to manage the overall effort, how any unpaid collaborators and industry or nonprofit partners (if applicable) will be integrated into the team, and specific activities that will help students involved in the project develop the skills to work on convergent research efforts.

- Letters of Collaboration (if relevant to the project): For all substantial collaborations and engagements (included or not included in the budget) with partner organizations, letters of collaboration are strongly encouraged. These should be provided in the supplementary documents section of the proposal and must follow the format instructions specified in the NSF PAPPG. Letters of Collaboration cannot contain endorsements or evaluation of the proposed project or any other past projects. This includes any statement about the value of the project to the partner organization. One acceptable format for a letter of collaboration is as follows:

"If the proposal submitted by Dr. [insert the full name of the principal investigator] entitled [insert the proposal title] is selected for funding by NSF, it is my intent to collaborate and/or commit resources as detailed in the project description or the facilities, equipment or other resources section of the proposal."

Proposals with letters of collaboration that contain any endorsement or evaluation of the proposed project will be returned without review.

Collaborative activities that are identified in the budget should follow the instructions in the NSF PAPPG. Any substantial collaboration with individuals not included in the budget should also be described in the facilities, equipment and other resources section of the proposal and documented in a letter of collaboration from each collaborator.

B. Budgetary Information

Cost Sharing:

Inclusion of voluntary committed cost sharing is prohibited.

C. Due Dates

- **Full Proposal Deadline(s)** (due by 5 p.m. submitting organization's local time):

   April 17, 2025

   March 06, 2026

D. Research.gov/Grants.gov Requirements

For Proposals Submitted Via Research.gov:

To prepare and submit a proposal via Research.gov, see detailed technical instructions available at: https://www.research.gov/research-portal/appmanager/base/desktop?_nfpb=true&_pageLabel=research_node_display&_nodePath=/researchGov/Service/Desktop/ProposalPreparationand For Research.gov user support, call the Research.gov Help Desk at 1-800-381-1532 or e-mail rgov@nsf.gov. The Research.gov Help Desk answers general technical questions related to the use of the Research.gov system. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this funding opportunity.

For Proposals Submitted Via Grants.gov:

Before using Grants.gov for the first time, each organization must register to create an institutional profile. Once registered, the applicant's organization can then apply for any federal grant on the Grants.gov website. Comprehensive information about using Grants.gov is available on the Grants.gov Applicant Resources webpage: https://www.grants.gov/applicants. In addition, the NSF Grants.gov Application Guide (see link in Section V.A) provides instructions regarding the technical preparation of proposals via Grants.gov. For Grants.gov user support, contact the Grants.gov Contact Center at 1-800-518-4726 or by email: support@grants.gov. The Grants.gov Contact Center answers general technical questions related to the use of Grants.gov. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

Submitting the Proposal: Once all documents have been completed, the Authorized Organizational Representative (AOR) must submit the application to Grants.gov and verify the desired funding opportunity and agency to which the application is submitted. The AOR must then sign and submit the application to Grants.gov. The completed application will be transferred to Research.gov for further processing.

The NSF Grants.gov Proposal Processing in Research.gov informational page provides submission guidance to applicants and links to helpful resources including the NSF Grants.gov Application Guide, Grants.gov Proposal Processing in Research.gov how-to guide, and Grants.gov Submitted Proposals Frequently Asked Questions.

Grants.gov proposals must pass all NSF pre-check and post-check validations in order to be accepted by Research.gov at NSF.

When submitting via Grants.gov, NSF strongly recommends applicants initiate proposal submission at least five business days in advance of a deadline to allow adequate time to address NSF compliance errors and resubmissions by 5:00 p.m. submitting organization's local time on the deadline. Please note that some errors cannot be corrected in Grants.gov. Once a proposal passes pre-checks but fails any post-check, an applicant can only correct and submit the in-progress proposal in Research.gov.

Proposers that submitted via Research.gov may use Research.gov to verify the status of their submission to NSF. For proposers that submitted via Grants.gov, until an application has been received and validated by NSF, the Authorized Organizational Representative may check the status of an application on Grants.gov. After proposers have received an e-mail notification from NSF, Research.gov should be used to check the status of an application.

VI. NSF Proposal Processing And Review Procedures

Proposals received by NSF are assigned to the appropriate NSF program for acknowledgement and, if they meet NSF requirements, for review. All proposals are carefully reviewed by a scientist, engineer, or educator serving as an NSF Program Officer, and usually by three to ten other persons outside NSF either as *ad hoc* reviewers, panelists, or both, who are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with oversight of the review process. Proposers are invited to suggest names of persons they believe are especially well qualified to review the proposal and/or persons they would prefer not review the proposal. These suggestions may serve as one source in the reviewer selection process at the Program Officer's discretion. Submission of such names, however, is optional. Care is taken to ensure that reviewers have no conflicts of interest with the proposal. In addition, Program Officers may obtain comments from site visits before recommending final action on proposals. Senior NSF staff further review recommendations for awards. A flowchart that depicts the entire NSF proposal and award process (and associated timeline) is included in PAPPG Exhibit III-1.

A comprehensive description of the Foundation's merit review process is available on the NSF website at: https://www.nsf.gov/bfa/dias/policy/merit_review/.

Proposers should also be aware of core strategies that are essential to the fulfillment of NSF's mission, as articulated in *Leading the World in Discovery and Innovation, STEM Talent Development and the Delivery of Benefits from Research - NSF Strategic Plan for Fiscal Years (FY) 2022 - 2026*. These strategies are integrated in the program planning and implementation process, of which proposal review is one part. NSF's mission is particularly well-implemented through the integration of research and education and broadening participation in NSF programs, projects, and activities.

One of the strategic objectives in support of NSF's mission is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions must recruit, train, and prepare a diverse STEM workforce to advance the frontiers of science and participate in the U.S. technology-based economy. NSF's contribution to the national innovation ecosystem is to provide cutting-edge research under the guidance of the Nation's most creative scientists and engineers. NSF also supports development of a strong science, technology, engineering, and mathematics (STEM) workforce by investing in building the knowledge that informs improvements in STEM teaching and learning.

NSF's mission calls for the broadening of opportunities and expanding participation of groups, institutions, and geographic regions that are underrepresented in STEM disciplines, which is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.

A. Merit Review Principles and Criteria

The National Science Foundation strives to invest in a robust and diverse portfolio of projects that creates new knowledge and enables breakthroughs in understanding across all areas of science and engineering research and education. To identify which projects to support, NSF relies on a merit review process that incorporates consideration of both the

technical aspects of a proposed project and its potential to contribute more broadly to advancing NSF's mission "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes." NSF makes every effort to conduct a fair, competitive, transparent merit review process for the selection of projects.

1. Merit Review Principles

These principles are to be given due diligence by PIs and organizations when preparing proposals and managing projects, by reviewers when reading and evaluating proposals, and by NSF program staff when determining whether or not to recommend proposals for funding and while overseeing awards. Given that NSF is the primary federal agency charged with nurturing and supporting excellence in basic research and education, the following three principles apply:

- All NSF projects should be of the highest quality and have the potential to advance, if not transform, the frontiers of knowledge.
- NSF projects, in the aggregate, should contribute more broadly to achieving societal goals. These "Broader Impacts" may be accomplished through the research itself, through activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. The project activities may be based on previously established and/or innovative methods and approaches, but in either case must be well justified.
- Meaningful assessment and evaluation of NSF funded projects should be based on appropriate metrics, keeping in mind the likely correlation between the effect of broader impacts and the resources provided to implement projects. If the size of the activity is limited, evaluation of that activity in isolation is not likely to be meaningful. Thus, assessing the effectiveness of these activities may best be done at a higher, more aggregated, level than the individual project.

With respect to the third principle, even if assessment of Broader Impacts outcomes for particular projects is done at an aggregated level, PIs are expected to be accountable for carrying out the activities described in the funded project. Thus, individual projects should include clearly stated goals, specific descriptions of the activities that the PI intends to do, and a plan in place to document the outputs of those activities.

These three merit review principles provide the basis for the merit review criteria, as well as a context within which the users of the criteria can better understand their intent.

2. Merit Review Criteria

All NSF proposals are evaluated through use of the two National Science Board approved merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two merit review criteria are listed below. **Both** criteria are to be given **full consideration** during the review and decision-making processes; each criterion is necessary but neither, by itself, is sufficient. Therefore, proposers must fully address both criteria. (PAPPG Chapter II.D.2.d(i). contains additional information for use by proposers in development of the Project Description section of the proposal). Reviewers are strongly encouraged to review the criteria, including PAPPG Chapter II.D.2.d(i), prior to the review of a proposal.

When evaluating NSF proposals, reviewers will be asked to consider what the proposers want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. These issues apply both to the technical aspects of the proposal and the way in which the project may make broader contributions. To that end, reviewers will be asked to evaluate all proposals against two criteria:

- **Intellectual Merit:** The Intellectual Merit criterion encompasses the potential to advance knowledge; and
- **Broader Impacts:** The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

The following elements should be considered in the review for both criteria:

1. What is the potential for the proposed activity to
   a. Advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
   b. Benefit society or advance desired societal outcomes (Broader Impacts)?
2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
4. How well qualified is the individual, team, or organization to conduct the proposed activities?
5. Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

Broader impacts may be accomplished through the research itself, through the activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. NSF values the advancement of scientific knowledge and activities that contribute to achievement of societally relevant outcomes. Such outcomes include, but are not limited to: full participation of women, persons with disabilities, and other underrepresented groups in science, technology, engineering, and mathematics (STEM); improved STEM education and educator development at any level; increased public scientific literacy and public engagement with science and technology; improved well-being of individuals in society; development of a diverse, globally competitive STEM workforce; increased partnerships between academia, industry, and others; improved national security; increased economic competitiveness of the United States; and enhanced infrastructure for research and education.

Proposers are reminded that reviewers will also be asked to review the Data Management and Sharing Plan and the Mentoring Plan, as appropriate.

B. Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by Ad hoc Review and/or Panel Review.

Reviewers will be asked to evaluate proposals using two National Science Board approved merit review criteria and, if applicable, additional program specific criteria. A summary rating and accompanying narrative will generally be completed and submitted by each reviewer and/or panel. The Program Officer assigned to manage the proposal's review will consider the advice of reviewers and will formulate a recommendation.

After scientific, technical and programmatic review and consideration of appropriate factors, the NSF Program Officer recommends to the cognizant Division Director whether the proposal should be declined or recommended for award. NSF strives to be able to tell proposers whether their proposals have been declined or recommended for funding within six months. Large or particularly complex proposals or proposals from new recipients may require additional review and processing time. The time interval begins on the deadline or target date, or receipt date, whichever is later. The interval ends when the Division Director acts upon the Program Officer's recommendation.

After programmatic approval has been obtained, the proposals recommended for funding will be forwarded to the Division of Grants and Agreements or the Division of Acquisition and Cooperative Support for review of business, financial, and policy implications. After an administrative review has occurred, Grants and Agreements Officers perform the processing and issuance of a grant or other agreement. Proposers are cautioned that only a Grants and Agreements Officer may make commitments, obligations or awards on behalf of NSF or authorize the expenditure of funds. No commitment on the part of NSF should be inferred from technical or budgetary discussions with a NSF Program Officer. A Principal Investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the NSF Grants and Agreements Officer does so at their own risk.

Once an award or declination decision has been made, Principal Investigators are provided feedback about their proposals. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of

the reviewers or any reviewer-identifying information, are sent to the Principal Investigator/Project Director by the Program Officer. In addition, the proposer will receive an explanation of the decision to award or decline funding.

VII. Award Administration Information

A. Notification of the Award

Notification of the award is made to *the submitting organization* by an NSF Grants and Agreements Officer. Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator. (See Section VI.B. for additional information on the review process.)

B. Award Conditions

An NSF award consists of: (1) the award notice, which includes any special provisions applicable to the award and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award notice; (4) the applicable award conditions, such as Grant General Conditions (GC-1)*; and (5) any announcement or other NSF issuance that may be incorporated by reference in the award notice. Cooperative agreements also are administered in accordance with NSF Cooperative Agreement Financial and Administrative Terms and Conditions (CA-FATC) and the applicable Programmatic Terms and Conditions. NSF awards are electronically signed by an NSF Grants and Agreements Officer and transmitted electronically to the organization via e-mail.

*These documents may be accessed electronically on NSF's Website at https://www.nsf.gov/awards/managing/award_conditions.jsp?org=NSF. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov.

More comprehensive information on NSF Award Conditions and other important information on the administration of NSF awards is contained in the NSF *Proposal & Award Policies & Procedures Guide* (PAPPG) Chapter VII, available electronically on the NSF Website at https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg.

Administrative and National Policy Requirements

Build America, Buy America

As expressed in Executive Order 14005, Ensuring the Future is Made in All of America by All of America's Workers (86 FR 7475), it is the policy of the executive branch to use terms and conditions of Federal financial assistance awards to maximize, consistent with law, the use of goods, products, and materials produced in, and services offered in, the United States.

Consistent with the requirements of the Build America, Buy America Act (Pub. L. 117-58, Division G, Title IX, Subtitle A, November 15, 2021), no funding made available through this funding opportunity may be obligated for infrastructure projects under an award unless all iron, steel, manufactured products, and construction materials used in the project are produced in the United States. For additional information, visit NSF's Build America, Buy America webpage.

Special Award Conditions:

For every SAI research award, one or more designated project representatives (PI/co-PI/senior personnel or NSF-approved replacement) must attend annual SAI PI meetings throughout the duration of the grant. For multi-organizational projects, investigators from each collaborating organization are expected to participate.

Attribution of support: Recipients are required to include appropriate acknowledgement of NSF support under the NSF Strengthening American Infrastructure Program in any publication (including web pages) of any material based on or developed under the project, in the following terms:

"This material is based on work supported by the National Science Foundation NSF Strengthening American Infrastructure Program under Grant No. (Recipient enters NSF grant number.)"

Recipients are also required to orally acknowledge NSF support using the language specified above during all news media interviews, including popular media such as radio, television and news magazines.

C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the Principal Investigator must submit an annual project report to the cognizant Program Officer no later than 90 days prior to the end of the current budget period. (Some programs or awards require submission of more frequent project reports). No later than 120 days following expiration of a grant, the PI also is required to submit a final annual project report, and a project outcomes report for the general public.

Failure to provide the required annual or final annual project reports, or the project outcomes report, will delay NSF review and processing of any future funding increments as well as any pending proposals for all identified PIs and co-PIs on a given award. PIs should examine the formats of the required reports in advance to assure availability of required data.

PIs are required to use NSF's electronic project-reporting system, available through Research.gov, for preparation and submission of annual and final annual project reports. Such reports provide information on accomplishments, project participants (individual and organizational), publications, and other specific products and impacts of the project. Submission of the report via Research.gov constitutes certification by the PI that the contents of the report are accurate and complete. The project outcomes report also must be prepared and submitted using Research.gov. This report serves as a brief summary, prepared specifically for the public, of the nature and outcomes of the project. This report will be posted on the NSF website exactly as it is submitted by the PI.

More comprehensive information on NSF Reporting Requirements and other important information on the administration of NSF awards is contained in the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) Chapter VII, available electronically on the NSF Website at https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg.

VIII. Agency Contacts

Please note that the program contact information is current at the time of publishing. See program website for any updates to the points of contact.

General inquiries regarding this program should be made to:

- Jeremy Koster, telephone: (703) 292-8740, email: jkoster@nsf.gov

- Joseph M. Whitmeyer, SBE, SBE/SES, telephone: (703) 292-7808, email: jwhitmey@nsf.gov

- Thomas Evans, SBE, telephone: (703) 292-4891, email: tevans@nsf.gov

- May Yuan, SBE, telephone: (703) 292-2206, email: mayuan@nsf.gov

- Claudia Gonzalez-Vallejo, SBE, telephone: (703) 292-4710, email: clagonza@nsf.gov

- Christine Leuenberger, SBE, telephone: (703) 292-7563, email: cleuenbe@nsf.gov

- Sara Kiesler, SBE, telephone: (703) 292-8643, email: skiesler@nsf.gov

- Michael Ford, EDU, telephone: (703) 292-5153, email: miford@nsf.gov

- Randy L. Phelps, OIA, telephone: (703) 292-5049, email: rphelps@nsf.gov

- Reed S. Beaman, BIO, telephone: (703) 292-7163, email: rsbeaman@nsf.gov

- Laura Lautz, GEO, telephone: (703) 292-7775, email: llautz@nsf.gov

- Giovanna Biscontin, ENG, telephone: (703) 292-2339, email: gibiscon@nsf.gov

- Thomas Martin, CISE, telephone: (703) 292-2170, email: tmartin@nsf.gov

- Bogdan Mihaila, MPS, telephone: (703) 292-8235, email: bmihaila@nsf.gov

For questions related to the use of NSF systems contact:

- NSF Help Desk: 1-800-381-1532
- Research.gov Help Desk e-mail: rgov@nsf.gov

For questions relating to Grants.gov contact:

- Grants.gov Contact Center: If the Authorized Organizational Representatives (AOR) has not received a confirmation message from Grants.gov within 48 hours of submission of application, please contact via telephone: 1-800-518-4726; e-mail: support@grants.gov.

IX. Other Information

The NSF website provides the most comprehensive source of information on NSF Directorates (including contact information), programs and funding opportunities. Use of this website by potential proposers is strongly encouraged. In addition, "NSF Update" is an information-delivery system designed to keep potential proposers and other interested parties apprised of new NSF funding opportunities and publications, important changes in proposal and award policies and procedures, and upcoming NSF Grants Conferences. Subscribers are informed through e-mail or the user's Web browser each time new publications are issued that match their identified interests. "NSF Update" also is available on NSF's website.

Grants.gov provides an additional electronic capability to search for Federal government-wide grant opportunities. NSF funding opportunities may be accessed via this mechanism. Further information on Grants.gov may be obtained at https://www.grants.gov.

About The National Science Foundation

The National Science Foundation (NSF) is an independent Federal agency created by the National Science Foundation Act of 1950, as amended (42 USC 1861-75). The Act states the purpose of the NSF is "to promote the progress of science; [and] to advance the national health, prosperity, and welfare by supporting research and education in all fields of science and engineering."

NSF funds research and education in most fields of science and engineering. It does this through grants and cooperative agreements to more than 2,000 colleges, universities, K-12 school systems, businesses, informal science organizations and other research organizations throughout the US. The Foundation accounts for about one-fourth of Federal support to academic institutions for basic research.

NSF receives approximately 55,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships. The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels and Arctic and Antarctic research stations. The Foundation also supports cooperative research between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

Facilitation Awards for Scientists and Engineers with Disabilities (FASED) provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects. See the *NSF Proposal & Award Policies & Procedures Guide* Chapter II.F.7 for instructions regarding preparation of these types of proposals.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation about NSF programs, employment or general information. TDD may be accessed at (703) 292-5090 and (800) 281-8749, FIRS at (800) 877-8339.

The National Science Foundation Information Center may be reached at (703) 292-5111.

> The National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants and cooperative agreements for research and education in the sciences, mathematics, and engineering.
>
> To get the latest information about program deadlines, to download copies of NSF publications, and to access abstracts of awards, visit the NSF Website at https://www.nsf.gov
>
> - **Location:**   2415 Eisenhower Avenue, Alexandria, VA 22314
>
> - **For General Information**   (703) 292-5111
>   (NSF Information Center)**:**
>
> - **TDD (for the hearing-impaired):**   (703) 292-5090
>
> - **To Order Publications or Forms:**
>
>   Send an e-mail to: nsfpubs@nsf.gov
>
>   or telephone: (703) 292-8134
>
> - **To Locate NSF Employees:**   (703) 292-5111

Privacy Act And Public Burden Statements

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; and project reports submitted by proposers will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the proposal review process; to proposer institutions/recipients to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies or other entities needing information regarding proposers or nominees as part of a joint application review process, or in order to coordinate programs or policy; and to another Federal agency, court, or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See System of Record Notices, NSF-50, "Principal Investigator/Proposal File and Associated Records," and NSF-51, "Reviewer/Proposal File and Associated Records." Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

An agency may not conduct or sponsor, and a person is not required to respond to, an information collection unless it displays a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 3145-0058. Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding the burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to:

Suzanne H. Plimpton
Reports Clearance Officer
Policy Office, Division of Institution and Award Support

Office of Budget, Finance, and Award Management
National Science Foundation
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