

NSF 22-629: Science and Technology Studies (STS)

Program Solicitation

Document Information

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National Science Foundation

Directorate for Social, Behavioral and Economic Sciences
Division of Social and Economic Sciences

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

February 09, 2023

February 2, Annually Thereafter

Deadline for all grant types offered under this solicitation, except Doctoral Dissertation Research Improvement Grants, which will only be accepted for the August 3 deadline.

August 03, 2023

August 3, Annually Thereafter

Deadline for all grant types offered under this solicitation.



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Important Information And Revision Notes

Revision Summary

1. The STS program description has been streamlined and clarified considerably and it now includes guidelines for developing an effective STS proposal.
2. The STS program encourages research on complex socio-technical and techno-scientific problems that are best confronted using a distributed approach by multiple collaborative teams.
3. The STS program has updated the funding caps for most types of grants that are supported by the program.
4. One grant type, the Professional Development Grant, is no longer supported.
5. Subfields of STS are now specified as those recognized by the primary STS professional societies, and these societies are listed in the solicitation.
6. A new section has been added on "Guidelines for Developing Effective STS 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:

Science and Technology Studies (STS)

Synopsis of Program:

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Science and Technology Studies (STS) is an interdisciplinary field that investigates the conceptual foundations, historical developments and social contexts of science, technology, engineering and mathematics (STEM), including medical science. The STS program supports proposals across a broad spectrum of research that uses historical, philosophical and social scientific methods to investigate STEM theory and practice. STS research may be empirical or conceptual; specifically, it may focus on the intellectual, material or social facets of STEM including interdisciplinary studies of ethics, equity, governance and policy issues.

Additional Resources

- [SBE Office of Multidisciplinary Activities \(SMA\)](#)
- [Convergence Accelerator \(C-Accel\)](#)

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.

- Wenda Bauchspies, Program Director, telephone: (703) 292-5034, email: wbauchsp@nsf.gov
- Christine Leuenberger, Program Director, telephone: (703) 292-7563, email: cleuenbe@nsf.gov

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

- 47.075 --- Social Behavioral and Economic Sciences

Award Information

Anticipated Type of Award: Standard Grant or Continuing Grant

Estimated Number of Awards: 40

Anticipated Funding Amount: \$6,200,000

Approximately \$6,200,000 will be made available in FY 2023 to support an estimated 40 awards. Estimated program budget and number of awards are subject to the availability of funds.

Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Organization limit varies by the type of proposal:
 - Standard Research Grants and Grants for Collaborative Research: U.S. Institutions of Higher Education and U.S. Non-profit, Non-academic Organizations.
 - Scholars Awards: U.S. Institutions of Higher Education and U.S. Non-profit, Non-academic Organizations.
 - Professional Development Grants: U.S. Institutions of Higher Education and U.S. Non-profit, Non-academic Organizations.
 - Research Community Development Grants: U.S. Institutions of Higher Education and U.S. Non-profit, Non-academic Organizations.
 - Doctoral Dissertation Research Improvement Grants: U.S. Institutions of Higher Education.
 - Conference Support: No limitations.

See the [PAPPG](#) for a description of each eligible category of proposer.

Who May Serve as PI:

PI eligibility limit varies by the type of proposal. See Section II. Program Description for detailed information about each type of proposal.

Limit on Number of Proposals per Organization:

There are no restrictions or limits.

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

There are no restrictions or limits.

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:**

Other budgetary limitations apply. Please see the full text of this solicitation for further information.

C. Due Dates

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

February 09, 2023

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Proposal Review Information Criteria

Merit Review Criteria:

National Science Board approved criteria apply.

Award Administration Information

Award Conditions:

Standard NSF award conditions apply.

Reporting Requirements:

Standard NSF reporting requirements apply.

I. Introduction

Science and Technology Studies (STS) is an interdisciplinary field that investigates the conceptual foundations, historical developments and social contexts of science, technology, engineering and mathematics (STEM), including medical science. The STS program supports proposals across a broad spectrum of research that uses historical, philosophical and social scientific methods to investigate STEM theory and practice. STS research may be empirical or conceptual; specifically, it

may focus on the intellectual, material or social facets of STEM including interdisciplinary studies of ethics, equity, governance and policy issues.

II. Program Description

STS research encompasses a wide range of methods and disciplines. Some researchers rely on primary data collected during fieldwork or on existing sources of secondary data. Others use data from historical or governmental archives, while others develop conceptual or social analyses to answer theoretical or ethical questions. STS researchers draw on the resources and methods of a wide range of disciplines, including anthropology, communication studies, economics, history, philosophy, political science, psychology and sociology. They come from an even broader range of fields, in addition to those already mentioned, including the natural and physical sciences, engineering, liberal arts and humanities. The range of STS research is reflected by the primary STS professional societies, including the Society for Social Studies of Science (4S), the Society for the History of Technology (SHOT), the History of Science Society (HSS), the Philosophy of Science Association (PSA), the American Association for the History of Medicine (AAHM), the American Society for Environmental History (ASEH), the Society for Philosophy of Science in Practice (SPSP) and the International Society for the History, Philosophy, and Social Studies of Biology (ISHPSSB).

STS research seeks to understand how scientific knowledge is produced and sanctioned, and how it is challenged and changes. It examines the theoretical foundations of science, brings to light underlying presuppositions and alternative interpretations, and assesses the reliability of research methods. It investigates how materials, devices and techniques are designed and developed; how and by whom they are diffused, used, adapted and rejected; how they are affected by social and cultural environments; and how they influence quality of life, culture and society. It also considers how socio-cultural values are embedded in science and technology, and how issues of governance and equity evolve with the development and use of scientific knowledge and technological artifacts. In addition, it explores relationships between STEM and fundamental social categories including race and gender, poverty and development, trust and credibility, participation and democracy, health and pathology, risk and uncertainty, globalization and environmental concerns.

Traditional STS Focus Areas

The program encourages research that furthers STS as a multidisciplinary and interdisciplinary field, including, but by no means limited to the following:

1. Research on the social organization of scientific work and how this shapes the production of knowledge and its intellectual and social impacts.
2. Research on the historical, conceptual and methodological foundations of any of the natural, social or engineering sciences including their foundations, origins or place in modern society.
3. Mixed methods approaches and other approaches that integrate multiple STS perspectives with each other or with innovative approaches from the arts or humanities.
4. Interdisciplinary projects on topics of broad societal concern that engage in integrative, collaborative research involving at least one STS expert and at least one expert in some other STEM field, with prospective outcomes that serve to advance both fields.
5. STS projects that contribute to [NSF's research-focused Big Ideas](#), or that contribute to other pertinent initiatives such as [Ethical and Responsible Research \(ER2\)](#), [Science of Broadening Participation](#) and [ADVANCE](#).

New Areas of Emphasis for STS

The STS program strongly encourages research that addresses complex socio-technical and techno-scientific problems from multiple perspectives that capture the different social facets of the problem. These social facets may include ethics, policy, governance, justice, equity, diversity, inclusion, race, gender, trust, reliability, risk and uncertainty, sustainability, user-centeredness, and globalization. The goal is to bring different disciplinary and interdisciplinary perspectives to the problem and thereby make use of a variety of theoretical frameworks and methodological approaches. Some examples of questions that address such problems may include, but are by no means limited to, the following:

1. How can emerging technologies such as machine learning systems, gene drives or quantum computers be developed and implemented so that they can benefit everyone? How are people interacting with these emerging technologies and how will they affect culture, society and norms?
2. What are the best approaches for maintaining and developing the built environment while respecting the natural environment as well as local cultures and values? What factors need to be considered to ensure that technologies work well within social and cultural contexts?
3. How can major technological shifts in energy, algorithm usage, transportation or communication be accomplished in ways that are transparent and consistent with societal values, engage diverse perspectives in all phases of development and benefit broad sectors of society?
4. How can justice, equity, inclusion and diversity (JEDI) impact STEM and change the practice and quality of STEM research?

Guidelines for Developing Effective STS Proposals

Effective STS proposals fully address both merit review criteria: intellectual merit and broader impacts. They situate the proposed project in pertinent STS literatures, issues and conceptual or theoretical frameworks, and articulate how the results of the proposed project would advance some STS subfield. They also clearly indicate central research questions, explain the methods to be used to answer those questions, provide a detailed research plan, and specify the project's potential broader impacts, including plans for realizing those impacts.

The research plan should provide a timeline, and it should show that there are adequate resources to successfully complete the project. If the research plan involves archival work, work in specific labs or engagement with pertinent community groups, it is also important to provide evidence of access to these research sites and groups. If the plan involves surveys, the proposal should discuss relevant issues such as sample size, selection criteria and survey design and content. Similarly, proposals involving interviews, focus groups, ethnographies, computational modeling, conceptual analysis, archival work or big data analysis should discuss the relevant details of study design.

Potential broader impacts must be fully addressed in the proposal. The Project Summary should describe specific, feasible broader impacts of the project, and the Project Description should include detailed plans to achieve those impacts. Investigators should develop plans for engaging in new modes of broad dissemination of research results that target pertinent audiences, including academics, stakeholders and the public.

Potential investigators who have concerns about whether their proposal fits the goals of the program are encouraged to send a one-page prospectus of their proposal idea to the STS Program Directors. The prospectus should include the core research questions, the methods to be used in answering them and a sense for the literature, issues and conceptual frameworks of some recognized STS subfields (indicated above) that will be employed in the project.

Relationships Between STS and Other Related SBE Programs

The STS Program and the [Ethical and Responsible Research \(ER2\)](#) Program both support research on core relationships between ethics and science. The ER2 Program is focused primarily on what constitutes and promotes responsible research conduct and how to instill that knowledge in researchers, practitioners and educators. By contrast, the STS Program supports research into ethical issues that may arise in close connection with developments in STEM research or on the ways in which STEM knowledge may impact our understanding of ethics itself.

The STS Program and the [Science of Science: Discovery, Communication and Impact \(SoS:DCI\)](#) Program both support research on core relationships between science and society. The SoS:DCI Program is focused predominantly on research to increase the public value of scientific activity through a better understanding of scientific discovery, communication and evidence-based policy making. By contrast, the STS program supports research on how scientific knowledge is produced, reproduced and maintained within a social context, and how science and its societal context mutually influence each other.

GRANT TYPES SUPPORTED BY STS

STS program supports a variety of grant types, listed below with associated guidelines. Funding caps on the grant types supported by the STS program are expressed in terms of the requested amount, which is the amount listed on the cover page of the proposal.

- The program mainly supports Standard Research Grants, Grants for Collaborative Research, Scholars Awards, Research Community Development Grants, Conference Grants and Doctoral Dissertation Research Improvement Grants.
- In addition, the program may support other NSF-wide grant mechanisms that are detailed in NSF's [PAPPG](#), including Rapid Response Research (RAPID), Early-concept Grants for Exploratory Research (EAGER) and Research Advanced by Interdisciplinary Science and Engineering (RAISE).

The following provides additional guidance for each grant type beyond that contained in the PAPPG or NSF Grants.gov Application Guide.

STANDARD RESEARCH GRANTS and GRANTS FOR COLLABORATIVE RESEARCH

These grants support proposals for basic STS research. They also support proposals for infrastructure development that serves to enhance STS research; program support of infrastructure projects is directed towards scholarly research and data production, rather than administrative or logistical activities.

Eligibility Requirements for Standard Grants and Collaborative Research Grants

These grants are made to U.S. institutions of higher education and to U.S. nonprofit, non-academic organizations.

Budget Guidelines for Standard and Collaborative Research Grant Proposals

Program guidelines and restrictions:

- These grants are governed by NSF's general policy, which limits salary compensation for senior project personnel to no more than two months of their regular salary in any one year. If anticipated, any compensation to such personnel for more than two months must be disclosed in the proposal budget, justified in the budget justification, and must be specifically approved by NSF in the award notice budget.
- Research assistance may be requested and must be justified in laying out the plan of work in the Project Description.
- Funds may also be requested for other research related expenses, such as data collection or data processing activities, a planned workshop, a consultant or some other professional service, an advisory committee or travel expenses (for research or for the dissemination of research results).
- Due to budgetary constraints, the Requested Amount will rarely exceed \$750,000 including indirect costs. The duration is typically two to three years. Proposals exceeding the suggested time frame or budget must have extraordinary justification and merit for eclipsing the requested guidelines.

SCHOLARS AWARDS

Scholars Awards provide up to full-time release for an academic year and a summer to conduct research. This time can be distributed over two or more years. In exceptional circumstances, longer releases can be requested.

Eligibility Requirements for Scholars Awards

Scholars Awards are made to U.S. institutions of higher education and U.S. nonprofit, non-academic organizations.

Budget Guidelines for Scholars Award Proposals

- These awards provide course-release support for research for up to one full-time academic year (nine person-months), covering both salary and fringe benefits.

- The award may be for up to three years to allow researchers to spread the nine person-months of support over a longer period, if, for example, university policy only permits one quarter release time per year.
- They may also provide support for up to two months, including salary and fringe benefits.
- Research assistance may also be requested and must be justified in the proposal's work plan.
- Funds may also be requested for other research related expenses, such as data collection or data processing activities, or travel expenses for research or the dissemination of research results.
- Due to budgetary constraints, the requested amount will rarely exceed \$350,000. The duration is usually one year. Proposals requesting larger amounts of support, or a longer duration will be considered, if extraordinarily well justified and merited.

RESEARCH COMMUNITY DEVELOPMENT GRANTS

The STS Program supports community development activities for graduate students and faculty. Such activities include field schools in the United States and abroad, summer training programs for both graduate students and faculty, a program for mid-project research team meetings, and small awards for preparation of materials for archiving by retiring researchers. Researchers who intend to submit a Research Community Development proposal should consult with an STS Program Officer before submitting, to ascertain the suitability of the envisioned activity.

Eligibility Requirements for Research Community Development Grants

These grants are made to U.S. institutions of higher education and to U.S. nonprofit, non-academic organizations.

Budget Guidelines for Research Community Development Grant Proposals

There is no award ceiling, but please be advised that a typical research community development grant award in the STS Program is expected to be in the range of \$75,000-\$100,000 *per year of the project* (corresponding to line L of the yearly budget), for up to 36 months. The [PAPPG](#) provides guidance about allowable and unallowable costs. Due to budgetary constraints, the Requested Amount will rarely exceed \$300,000.

CONFERENCE GRANTS

These proposals should be prepared in accordance with the guidance in PAPPG Chapter II.E.9. Additional program guidelines and restrictions are provided below.

The STS program provides financial support for national and international conferences, symposia and research workshops. The program is particularly interested in proposals that promote new research networks between researchers in STS and scientists and engineers, or between STS scholars and members of scholarly communities not normally in contact with each other. A goal of the gathering should be the development of a new field of scholarship, pedagogy or research.

Proposals for conference or workshop support should describe the need for the gathering, the proposed date and location, topics and persons who will be involved, prior related meetings, publicity, and expected outcomes. Conferences and workshops may not be carried out as special sessions in regular meetings of professional societies; they may be held before or after a regular meeting of a professional society, if justified. Meetings should usually be open. Every effort should be made to include younger scholars and members of underrepresented groups as speakers, organizers, attendees and in other related roles; these efforts should be described in the Project Description component of the proposal.

Eligibility Requirements for Conference Grants

All categories of proposers recognized by NSF are eligible to submit proposals. See the [PAPPG](#) (Chapter I.E) for more information about who may submit proposals.

Budget Guidelines for Conference Grant Proposals

- The requested amount for conferences and workshops is expected to be under \$50,000.
- Expenses (travel, stipends, etc.) for attendees should be entered on the Participant Support line of the budget.
- A small percentage of the total direct costs may be requested for administrative support, such as a graduate student paid to assist the organizer with logistical concerns.
- Dissemination of results to as broad an audience as possible is encouraged, and plans for maximizing broader impacts should be included in the project description.

DOCTORAL DISSERTATION RESEARCH IMPROVEMENT GRANTS (DDRIGs)

DDRIGs provide funds for dissertation research expenses not normally available through the PhD student's university. The dissertation director is the Principal Investigator on these proposals; the doctoral student should be listed as Co-Principal Investigator.

DDRIG proposals should be prepared in accordance with the guidelines for regular research proposals specified in the PAPPG as supplemented by the guidance in this solicitation. The Project Description should not exceed 10 pages and should describe the scientific significance of the work, including its relationship to other current research, and the design of the project in sufficient detail to permit evaluation. It should present and interpret progress to date if the research is already underway. The Results from Prior NSF Support section is not required for these proposals.

Awards are not intended to cover the full costs of a student's doctoral dissertation research. Funds may be used only for valid research expenses which include, but are not limited to, conducting field research in settings away from campus that would not otherwise be possible, data collection costs, or travel to archives or special collections. Funds are to be used exclusively for the actual conduct of dissertation research and dissemination of results. These funds may not be used as a student stipend, for tuition, textbooks, journals or for the typing, reproduction or publication costs of the student's dissertation. Funds may only be requested for undergraduate research assistants in very special circumstances, which should be carefully justified.

The DDRIG program requires a letter of support from the student's dissertation director to be included in the proposal. This letter is not intended as a traditional recommendation, but should evaluate the student's promise as a researcher, the student's capabilities for undertaking this project and the value and status of the proposed research. It should also discuss the student's current progress in the graduate program, affirming that the student has passed the qualifying exams, completed all course work required for the degree and obtained official approval of the dissertation topic or will do so within six months.

If the doctoral student will use the award for travel expenses to work with a specialist, then the program requires that the proposal provide a justification for the choice of the specialist and include a letter of collaboration from the specialist agreeing to work with the student. The letter of collaboration should not provide any evaluative content concerning the quality of the work or of the student.

The letter of support from the dissertation director and letters of collaboration (if any) should be placed in the Supplementary Documents section of the proposal. Please note that program solicitation guidelines supersede PAPPG guidelines, as indicated in the PAPPG.

Eligibility Requirements for Doctoral Dissertation Research Improvement Grants

- Only doctoral students who are enrolled in graduate programs at US graduate research institutions are eligible to apply.
- Doctoral students must have passed the qualifying exams, have completed all course work required for the degree and have official approval of the dissertation topic prior to receiving the award.

Budget Guidelines for Doctoral Dissertation Research Improvement Grant Proposals

- Due to budgetary limitations, the requested amount for DDRIG proposals should not exceed \$25,000.

- Neither the PI (the dissertation director) nor the Co-PI (the dissertation student) should be listed on the Senior/Key Personnel section of the Budget page, since DDRIG proposals do not provide funds for salaries or stipends for the doctoral student, the dissertation director or other faculty advisors. After the PI and the Co-PI are entered on the cover sheet, their names should be manually removed from the Senior/Key Personnel section of each budget page to avoid voluntary committed cost sharing, which is not permitted.

OTHER FUNDING OPPORTUNITIES

FACULTY EARLY CAREER DEVELOPMENT (CAREER) GRANTS

The STS Program participates in the NSF-wide CAREER Program for junior faculty (untenured but tenure-track or equivalent). CAREER proposals have a mandatory duration of five years, and the proposed work should be of sufficient scope, originality and significance to justify that amount of time. As explained in the CAREER solicitation, CAREER proposals must have an integrated research and education plan. In addition to providing support for research and education efforts, proposers may include expenses for specialized training to enhance their research and future professional trajectory.

Researchers who want to submit CAREER proposals should consult the [CAREER solicitation](#) for eligibility information, submission deadlines (which are different from the STS submission deadlines) and other CAREER Program requirements. After submission, each CAREER proposal is checked to determine that it is compliant with CAREER Program requirements. Compliant proposals are then reviewed along with other research proposals submitted to the STS Program.

Budget Guidelines for Faculty Early Career Development Grant Proposals

The *minimum* Requested Amount is \$400,000 and the duration must be for five years. The STS program strives to make more awards by funding CAREER proposals closer to the minimum award size.

MID-CAREER ADVANCEMENT (MCA) GRANTS

The STS Program participates in the NSF-wide MCA Program. It provides an opportunity for STS researchers at the Associate Professor rank (or equivalent) to substantively enhance and advance their research program through synergistic and mutually beneficial partnerships, typically at an institution other than their home institution. Projects that envision new insights on existing problems or identify new but related problems previously inaccessible without new methodology or expertise from other fields are encouraged. Partners from outside the PI's own sub-discipline or discipline are encouraged, but not required, to enhance interdisciplinary networking and convergence across science and engineering fields.

Researchers who want to submit MCA proposals should consult the [MCA solicitation](#) for eligibility information, submission deadlines (which are different from the STS submission deadlines) and other MCA Program requirements. After submission, each MCA proposal is checked to determine that it is compliant with MCA Program requirements. Compliant proposals are then reviewed along with other research proposals submitted to the STS Program.

Budget Guidelines for Mid-Career Advancement Grant Proposals

MCA proposals may request funds to support the mid-career researcher and one month of summer support for each collaborative partner (in lieu of summer support for the partner(s), other reasonable collaborative costs may be considered). Funds may include up to a total of 6.5 months of salary (plus fringe benefits) over the course of the award, and up to \$100,000 for other direct costs in support of the research advancement and training plan. These funds (salary and direct costs) are not yearly allocations, but rather total amounts that can be expended over the course of three years. The \$100,000 direct cost allotment should include funds to cover the cost of attendance of one in-person two-day awardee networking meeting held at NSF headquarters in Alexandria, VA. Costs for one partner to accompany the mid-career researcher at this meeting may be requested but must be included as part of the \$100,000 direct cost cap.

RESEARCH COORDINATION NETWORK (RCN) GRANTS

The STS Program supports the NSF-wide Research Coordination Network (RCN) program. RCN awards are intended to advance research directions by supporting new, thematically focused collaborations of researchers to communicate and coordinate research, training and educational activities across disciplinary, organizational, geographic and international boundaries. RCN awards do not support primary research, existing research networks, ongoing collaborations or collaborations at a single institution. Instead, they are intended to advance the creation of new collaborations, new fields and new research directions.

Budget Guidelines for Research Coordination Network Grant Proposals

The maximum Requested Amount is \$500,000 and the maximum duration is five years. RCN proposals should be submitted directly to the STS Program, but researchers should follow the guidelines described in the [RCN Program Solicitation](#).

EARLY-CONCEPT GRANTS FOR EXPLORATORY RESEARCH (EAGER)

The STS Program supports EAGER proposals for funding research on untested but potentially transformative research ideas and approaches. Researchers must have prior approval from an STS Program Officer to submit an EAGER proposal. The EAGER proposal type should not be used for proposals that could be submitted to a regular competition, so the initial inquiry should explain carefully why the anticipated project fits the EAGER criteria. There are no deadlines, the Project Description is limited to 8 pages, and only internal NSF review is required. Please see the full description of this mechanism in the [PAPPG](#).

Budget Guidelines for EAGER Proposals

The maximum Requested Amount is \$300,000 and the maximum duration is two years.

RESEARCH ADVANCED BY INTERDISCIPLINARY SCIENCE AND ENGINEERING (RAISE) GRANTS

The STS Program welcomes requests to submit a RAISE proposal. This type of proposal is for unusually bold, innovative, risky, potentially transformative and unconventionally interdisciplinary research for which there is no other appropriate NSF program. Researchers must receive written approval from a Program Officer in the STS Program and a Program Officer from at least one other distinct NSF program that is in a different Directorate before being allowed to submit a RAISE proposal. There are no deadlines and the review process is internal. Please refer to [PAPPG](#) for more details.

Budget Guidelines for RAISE Proposals

The maximum Requested Amount is \$1 million and the maximum duration is five years.

RAPID RESPONSE RESEARCH (RAPID) GRANTS

RAPID grants support urgent research when data would be lost if the researchers had to wait for the completion of a normal review cycle. This might be because of unanticipated access to rarely available specialized equipment, research sites or specialized informants. RAPID support is often requested for quick-response research on natural or anthropogenic disasters or other unforeseen events. To be successful in a request for RAPID support, investigators must convincingly argue that the situation to be investigated will produce data that are unlikely to be found in any other situation and that are essential for identified and important research questions. RAPID support is not intended for simple post-disaster appraisals and documentation.

Researchers must contact an STS Program Officer in advance of submitting a RAPID proposal. In the initial email, proposers should briefly explain why this research is suitable for RAPID funding, the data to be collected, why these data are scientifically important, an estimate of the necessary budget and a timeline for the research. RAPID proposals are limited to five pages and only internal NSF review is required, so funding can be made available relatively quickly. More details can be found in the [PAPPG](#).

Budget Guidelines for RAPID Proposals

The maximum Requested Amount is \$200,000 and the maximum duration is one year.

RESEARCH EXPERIENCES FOR UNDERGRADUATES (REU) SUPPLEMENTS

The STS Program supports the [REU Supplement Program](#). Proposers are advised that the Principal Investigator (PI) should be a tenured or tenure-track researcher who holds an existing NSF award either from the STS Program or from another NSF program. Each student's research must be his or her own research project. These supplements are not intended to support clerical or research assistance to the PI. They also are not intended to support language training except in the context of the research project. The purpose of the REU supplements is to provide promising STS undergraduate students with opportunities for independent research while also encouraging PIs to mentor students in collaborative activities. The expectation is that an REU student is planning to go to graduate school in some STS subfield. Requests for REU supplements should ideally be submitted by March 1, annually, but requests may also be accepted at other times of the year by contacting an STS Program Officer in advance.

The supplemental funding request should include: (1) a two to three page description of the project to be undertaken, written by the student; (2) a one to two page endorsement of the student by the PI mentor, identifying the grounds for the student's selection as well as the PI's plans for mentoring the student; (3) a two-page biographical sketch for the student; and (4) a budget with budget justification.

These requests are submitted as supplemental funding requests to the PI's existing award. If the existing award is not with the STS Program, please consult with an STS Program Director before submitting a request for supplemental funding.

Budget Guidelines for REU Supplemental Funding Requests

The maximum Requested Amount is \$16,000 to support up to two STS undergraduate students at \$8,000 per student to support the cost of the student's independent research activity.

Other Grant Opportunities for STS Researchers

STS researchers are encouraged to consider funding opportunities in related programs including:

- [Ethical and Responsible Research \(ER2\)](#)
- [Science of Science: Discovery, Communication, and Impact \(SoS:DCI\)](#)
- [SBE Office of Multidisciplinary Activities \(SMA\)](#)

In addition, STS researchers should also consider other programs that provide interdisciplinary funding opportunities.

- [Dynamics of Integrated Socio-Environmental Systems \(DISES\)](#)
- [Advancing Informal STEM Learning \(AISL\)](#)
- [Convergence Accelerator \(C-Accel\)](#)
- [NSF Research Traineeship \(NRT\)](#)

III. Award Information

Anticipated Type of Award: Continuing Grant or Standard Grant

Estimated Number of Awards: 40

Anticipated Funding Amount: \$6,200,000

Approximately \$6,200,000 will be made available in FY 2023 to support an estimated 40 awards. Estimated program budget and number of awards are subject to the availability of funds.

IV. Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Organization limit varies by the type of proposal:
 - Standard Research Grants and Grants for Collaborative Research: U.S. Institutions of Higher Education and U.S. Non-profit, Non-academic Organizations.
 - Scholars Awards: U.S. Institutions of Higher Education and U.S. Non-profit, Non-academic Organizations.
 - Professional Development Grants: U.S. Institutions of Higher Education and U.S. Non-profit, Non-academic Organizations.
 - Research Community Development Grants: U.S. Institutions of Higher Education and U.S. Non-profit, Non-academic Organizations.
 - Doctoral Dissertation Research Improvement Grants: U.S. Institutions of Higher Education.
 - Conference Support: No limitations.

See the [PAPPG](#) for a description of each eligible category of proposer.

Who May Serve as PI:

PI eligibility limit varies by the type of proposal. See Section II. Program Description for detailed information about each type of proposal.

Limit on Number of Proposals per Organization:

There are no restrictions or limits.

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

There are no restrictions or limits.

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.

Please refer to Section II, Program Description, for special proposal preparation information and instructions.

B. Budgetary Information

Cost Sharing:

Inclusion of voluntary committed cost sharing is prohibited.

Other Budgetary Limitations:

Other budgetary limitations apply and are specific to the grant type. Please see the full text of this solicitation for further information.

C. Due Dates

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

February 09, 2023

February 2, Annually Thereafter

Deadline for all grant types offered under this solicitation, except Doctoral Dissertation Research Improvement Grants, which will only be accepted for the August 3 deadline.

August 03, 2023

August 3, Annually Thereafter

Deadline for all grant types offered under this solicitation.

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/ProposalPreparation

For Research.gov user support, call the Research.gov Help Desk at 1-800-673-6188 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 applicants whether their proposals have been declined or recommended for funding within six months. Large or particularly complex proposals or proposals from new awardees 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)*; or Research Terms and Conditions* 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 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.

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:

- Wenda Bauchspies, Program Director, telephone: (703) 292-5034, email: wbauchsp@nsf.gov
- Christine Leuenberger, Program Director, telephone: (703) 292-7563, email: cleuenbe@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.E.6 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** (NSF Information Center): (703) 292-5111
- **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 awardees 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/grantees 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 applicants 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
Alexandria, VA 22314

[Vulnerability disclosure](#) | [Inspector General](#) | [Privacy](#) | [FOIA](#) | [No FEAR Act](#) | [USA.gov](#) | [Accessibility](#) |
[Plain language](#) |



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