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Topics Covered

- Find Funding Opportunities
- Proposal and Award Policies and Procedures Guide
- Types of Proposal Submissions
- Sections of an NSF Proposal
- Postdoctoral Mentoring Plans
- Data Management Plans
Find Funding Opportunities

NSF Funding & Research Community

FUNDING OPPORTUNITIES
- Search Funding Opportunities
- Enter search term
- Filter by Program Area
- Select Area
- View All Funding Opportunities

- Proposal and award proposal and
  procedures guide
- Project progress
- Meeting Date Guide
- Grant Proposal and
  administrative guide

FUNDING OPPORTUNITIES
- Search Funding Opportunities
- Enter search term
- Filter by Program Area
- Select Area
- View All Funding Opportunities

NSF Website Organization

Research Areas
- Biological Sciences
- Chemical Sciences
- Engineering
- Geosciences
- Mathematical Sciences
- Materials Science
- Physical Sciences
- Social, Behavioral, & Economic Sciences

Funding & Awards
- Funding & Awards
- NSF Awards
- NSF Awards Guide
- NSF Awards

Contact Us
- Staff Directory
- Organization List
- Work at NSF
- Diversity at NSF
- Site Search
- NSF Home Page
- NSF Policies
- NSF Home Page
- NSF Policies
- NSF Home Page
- NSF Policies

Learning Resources
- Learning Resources
- Film, TV, Exhibits & More!
- Science & Tech Galleries
- Classroom Resources
- Fundraising for Research

News & Discoveries
- News & Discoveries
- Recent News
- Recent Discoveries
- Multimedia Gallery
- Special Reports

National Science Foundation
4201 Wilson Boulevard, Arlington, Virginia 22230, USA
Tel: (703) 292-5110
FAX: (703) 302-8100
Web: www.nsf.gov

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Web: www.nsf.gov
NSF Award Search

Other Ways to Find Funding

Use Grants.gov’s search feature
What is the Proposal & Award Policies & Procedures Guide?

The Proposal & Award Policies & Procedures Guide (PAPPG) contains documents relating to NSF's proposal and award process. It has been designed for use by both our customer community and NSF staff and consists of two parts:

Part I is NSF’s proposal preparation and submission guidelines – the NSF Grant Proposal Guide (GPG) and the NSF Grants.gov Application Guide.
What is the Proposal & Award Policies & Procedures Guide?

Part II is NSF’s award and administration guidelines – the documents used to guide, manage, and monitor the award and administration of grants and cooperative agreements made by NSF.

Grant Proposal Guide

- Provides guidance for preparation and submission of proposals to NSF
- Describes process – and criteria – by which proposals will be reviewed
- Outlines reasons why a proposal may be returned without review
- Describes process for withdrawals, returns, and declinations
Types of Funding Opportunities

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<td>Dear Colleague Letters</td>
<td>Dear Colleague Letters are notifications of opportunities or special competitions for supplements to existing NSF awards.</td>
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What to Look for in a Program Announcement or Solicitation

- Goal of Program
- Eligibility
- Special proposal preparation and/or award requirements
Sample Cover Page of a Solicitation

Program Solicitation Number

NSF Directorates and Offices providing funding for this opportunity

Sample Cover Page of a Solicitation

Award Information

Anticipated Type of Award: Standard Grant or Continuing Grant or Cooperative Agreement

Estimated Number of Awards: 60

Up to 60 awards will be made across fiscal 2012 and 2013.

In FY 2012, up to 30 Bridge to the Doctorate (BD) grants will be made.

In FY 2013, 20 Alliance grants (this includes 5 E2BG, 15 Bridge to the Doctorate (BD) grants and up to 5 Broadening Participation Research (BPR) in STEM Education grants.

Anticipated Funding Amount: $20,000,000

$20,000,000 across fiscal years 2012 and 2013; Subject to the availability of funds.
Sample Cover Page of a Solicitation

Eligibility Information

Organization Limit:
Proposals may only be submitted by the following:
- Universities and Colleges - Universities and two- and four-year colleges (including community colleges) accredited in, and having a campus located in the U.S., acting on behalf of their faculty member. Such organizations also are referred to as academic institutions.

PI Limit:
- Alliances, including the SDIs and RDIs: To promote institutional commitments to increase the quality and quantity of underrepresented minorities in STEM disciplines, the President or Provost of the lead institution should serve as the Principal Investigator. A full exploration should be provided to a PI designation in variance with this requirement.
- Co-principal investigators from partner institutions may be designated, as appropriate, for the project.

Broadening Participation in STEM Education: Eligible PIs for proposals applying for educational research or evaluation support, should be the individual conducting or responsible for the research or evaluation project. Other potential co-Principal Investigators include collaborators on the research project. At least one of the PIs must have experience in educational research.

Limit on Number of Proposals per Organization:
- Alliances, including SDIs and RDIs: 1
- Broadening Participation Research in STEM Education: No limit.

Limit on Number of Proposals per PI:
- Alliances (excluding SDI): 1
- Bridge to the Doctorate: 1
- Broadening Participation Research in STEM Education: No limit

Types of Proposal Submissions

No Deadlines – Proposals may be submitted at any time

*Proposers should allow adequate time for NSF reviews and processing of proposals, see NSF Chapter 1.1 for further information. Many NSF programs accept proposals at any time. Other programs, however, establish due dates for submission of proposals. The following types of due dates are utilized by NSF:

1. Target dates: dates after which proposals will still be accepted, although they may miss a particular panel or committee meeting.
2. Deadline dates: dates after which proposals will be reviewed without regard to NSF. The deadline date will be waived only in extraordinary circumstances. Such a waiver only may be authorized in accordance with NSF Chapter 5.1A.
Types of Proposal Submissions

Target Dates – Talk to the Program Office if you think you might miss the date

1. Target dates: dates after which proposals will still be accepted, although they may miss a particular panel or committee meeting.

2. Deadline dates: dates after which proposals will be reviewed or returned without review by NSF.

Deadline Dates – Proposals will not be accepted after this date and time (5 p.m. submitter’s local time)

1. Target dates: dates after which proposals will still be accepted, although they may miss a particular panel or committee meeting.

2. Deadline dates: dates after which proposals will be reviewed or returned without review by NSF. The deadline date will be waived only in extenuating circumstances. Such a deviation will only be authorized in accordance with NSF Chapter II.A.
Types of Proposal Submissions

Submission Windows – Closing date converts to a deadline date

2. Submission windows: designated periods of time during which proposals will be accepted for review by NSF. It is NSF’s policy that the end date of a submission window converts to, and is subject to, the same policies as a deadline date.

Types of Proposal Submissions

Letters of Intent – Enables better management of reviewers and panelists

1. Letter of Intent
Some NSF program solicitations require or request submission of a letter of intent (LOI) in advance of submission of a full proposal. A LOI is not binding. The predominant reason for its use is to help NSF program staff to gauge the size and range of the competition, enabling earlier selection and better management of reviewers and panelists. In addition, requests for LOIs are often embedded in a LOI to help avoid potential conflicts of interest in the review process.

A LOI normally contains the PI’s and co-PI’s names, a proposed title, a list of possible participating organizations (if applicable), and a synopsis that describes the work in sufficient detail to permit an appropriate selection of reviewers. A LOI is not externally evaluated or used to decide on funding. The requirement to submit a LOI will be identified in the program solicitation, and such letters are submitted electronically via the NSF GrantSystem.
Types of Proposal Submissions

Preliminary Proposals – Sometimes required, sometimes optional

Proposals Not Accepted

- Proposals that do not contain the following required sections will not be accepted by FastLane:
  - Project Summary
  - Project Description
  - References Cited
  - Biographical Sketch(es)
  - Budget
  - Budget Justification
  - Current and Pending Support
  - Facilities, Equipment and Other Resources
  - Data Management Plan
  - Postdoctoral Mentoring Plan (if applicable)
- If submission instructions do not require one of the above sections to be provided, proposers must insert text or upload a document in that section of the proposal that states, “Not Applicable.”
Before You Begin to Write

• **Get to know yourself** - write a strategic plan for your life

• **A strategic plan is a roadmap**
  - Where are you?
  - Where do you want to go?
  - How can you get there?

• Base your plan on actions over which you have control

• Fit your research into the context of your strategic plan

• Learn to say “no” where appropriate

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Sections of an NSF Proposal

**Cover Sheet (Required)**
Many of the boxes on the cover sheet are electronically prefilled as part of the FastLane login process.

*Example from FastLane*
Sections of an NSF Proposal

Project Summary (Required)
Text boxes must contain an Overview and Statements on Intellectual Merit and Broader Impacts.

Proposals that do not separately address the Overview and both merit review criteria in text boxes will not be accepted by FastLane.

Project summaries with special characters must be uploaded as a PDF document.

Text from the GPG

Project Summary Template

Paragraph 1: "The research objective of this proposal is… The approach will be..." (Focus – do not begin with a State-of-the-Union address)

Paragraph 2: Intellectual Merit – describe the contribution to the field of science or engineering. What new or additional research will the proposed work enable?

Paragraph 3: Broader Impact – describe the benefit to society or importance to the nation of the proposed work assuming success (this is not an imperative to teach quantum chromodynamics to a fourth grade class)

For CAREER proposals, be sure to include educational objectives and approach

Do not include irrelevant materials
Sections of an NSF Proposal

Project Description (Required)
Proposers should address what they 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.

A separate section within the narrative must include a discussion of the broader impacts of the proposed activities.

Text from the GPG

NSF Funds Research and Education

For a research proposal: What is your research objective?

What is research?

- Research is the process of finding out something we (everyone) don't already know.
- NSF funds scientific research:
  - Methodical
  - Repeatable
  - Verifiable
- If your research objective is about an artifact (a device, product, system, process), it's probably development.
- If your research objective is about knowledge, it's probably research.
Four Ways to Frame a Research Objective

- The research objective of this proposal is to test the hypothesis $H$.
- The research objective of this proposal is to measure parameter $P$ with accuracy $A$.
- The research objective of this proposal is to prove conjecture $C$.
- The research objective of this proposal is to apply method $M$ from field $Q$ to solve problem $X$ in field $R$.

The Research Plan

- A comprehensive plan to accomplish the stated objective, e.g., a plan to test an hypothesis
  - What are the key variables?
  - Over what range of variables will the hypothesis be tested?
  - How many tests are appropriate?
- Understand what comprises a valid scientific hypothesis—it must be testable and falsifiable
- Ref: Karl Popper
A Word on Ethics

- Persons submitting proposals to the Federal government are held to high standards of conduct.
- Inappropriate conduct: plagiarism, falsification, fabrication, double charging, release of confidential information.
- Maximum penalty: $250,000 fine and 5 years in prison (Grimes).
- Rules apply to annual/final reports.
- Many PIs have ruined their careers through unethical conduct, don’t be the next one.

Sections of an NSF Proposal

References Cited (Required)
Reference information is required, and proposers must follow accepted scholarly practices in providing citations for source materials.

Text from the GPG
Sections of an NSF Proposal

Biographical Sketches (Required)
Biographical sketches are required for all senior project personnel and must not exceed two pages in length, per individual.

Text from the GPG

Budget (Required)
Each proposal must contain a budget for each year of support requested. The budget justification should be no more than three pages for all years of the project combined.

Example from FastLane
Budgetary Guidelines

Information regarding budgetary guidelines can be found in both the GPG and in the Award & Administration Guide (AAG), as well as NSF program solicitations.

Amounts should be:
- Realistic and reasonable
- Well-justified and should establish need
- Consistent with program guidelines

Eligible costs consist of:
- Personnel
- Equipment
- Travel
- Participant support
- Other direct costs (e.g., subawards, consultant services, computer services, and publications costs)

NSF Cost Sharing Policy

- Inclusion of voluntary committed cost sharing is prohibited in solicited & unsolicited proposals.
  - To be considered voluntary committed cost sharing, the cost sharing must meet all of the standards of 2 CFR § 215.23, to include identification of cost sharing on the NSF budget.
  - Line M will be “grayed out” in FastLane.

- Organizations may, at their own discretion, continue to contribute any amount of voluntary uncommitted cost sharing to NSF-sponsored projects.
Facilities, Equipment, and Other Resources (Required)
This section of the proposal is used to assess the adequacy of the organizational resources available to perform the effort proposed.

Instructions: Upload an aggregated description of the internal and external resources (both physical and personnel) that the organization and its collaborators will provide to the project, should it be funded. Describe only those resources that are directly applicable. The description should be narrative in nature and must not include any quantifiable financial information. If there are no Facilities, Equipment, or Other Resources identified, a statement to that effect should be indicated in this section and uploaded into FastLane. See GPG II.C.2.i for more information.

Current and Pending Support (Required)
This section of the proposal calls for information on all current and pending support for ongoing projects and proposals.

Example from FastLane
Special Information and Supplementary Documentation

This segment should alert NSF officials to unusual circumstances that require special handling; more information can be found in the GPG Chapter II.C.2.j.

Text from the GPG

- Letters of Support versus Letters of Commitment
- Postdoctoral Mentoring Plans
- Data Management Plans
Mentoring for Postdoctoral Researchers

• Proposals that include funding to support postdoctoral researchers must include a description of the mentoring activities that will be provided for such individuals.

• Proposed mentoring activities will be evaluated as part of the merit review process, under NSF’s Broader Impacts merit review criterion.

Mentoring for Postdoctoral Researchers

• Mentoring activities may include:
  – Providing career counseling, training in the preparation of grant proposals, or training in responsible professional practices
  – Developing publications and presentations
  – Offering guidance on techniques to improve teaching and mentoring skills
  – Providing counseling on how to effectively collaborate with researchers from diverse backgrounds and disciplinary areas
Mentoring for Postdoctoral Researchers

- Proposals that identify a postdoc on the budget but do not include a maximum one-page mentoring plan as a supplementary document will be prevented from submission in FastLane.

- For collaborative proposals, the lead organization must submit a mentoring plan for all postdoctoral researchers supported under the entire collaborative project.

Data Management Plan Requirements

- All proposals are required to include, as a supplementary doc, a data management plan of up to two pages.

- Plan should describe how the proposal will conform to NSF policy on dissemination and sharing of research results.

- A valid Data Management Plan may include only the statement that no detailed plan is needed, as long a clear justification is provided.

- Plan will be reviewed as part of the Intellectual Merit and/or Broader Impacts of the proposal.
Data Management Plan Requirements

For More Information

Ask Early, Ask Often!

nsf.gov/staff
nsf.gov/staff/orglist.jsp
nsf.gov/about/career_opps/rotators/index.jsp