NSF FUNDAMENTALS WORKSHOP

NCURA Annual Meeting
August 2017
SPEAKERS

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TOPICS COVERED

• About NSF
• Proposal Preparation
• Merit Review
• Award and Administration
ABOUT NSF
NSF MISSION

“To promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense...”
NSF IN A NUTSHELL

- Independent Agency
- Supports basic research and education
- Uses grant mechanism
- Low overhead; highly automated
- Discipline-based structure
- Cross-disciplinary mechanisms
- Use of Rotators/IPAs
- National Science Board
FY 2018 REQUEST: TOTAL R&D BY AGENCY

Total R&D = $118 billion

Budget Authority in Billions of Dollars
NSF Funding & Research Community

SPECIAL NOTICES

NSF Strategic Plan for FY 2014-2018

New NSF Proposal & Award Policies and Procedures Guide Issued, Effective for Proposals Submitted or Due On or After February 24, 2014


EVENT CALENDAR

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Title</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>17 JUN</td>
<td>NSF ADVANCE Program New Solicitation Webinars</td>
<td>WEBCAST</td>
</tr>
<tr>
<td>19 JUN</td>
<td>CDL - The Future of Computing - Mediated Research and Innovation</td>
<td>WEBCAST</td>
</tr>
<tr>
<td>19 JUN</td>
<td>The Future of Computing - Mediated Research and Innovation</td>
<td></td>
</tr>
</tbody>
</table>
OTHER WAYS TO FIND FUNDING

Use Grants.gov’s search feature
PROPOSAL PREPARATION
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
- Part II is NSF’s award and administration guidelines
WHAT IS THE PROPOSAL & AWARD POLICIES & PROCEDURES 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 not be accepted or returned without review
- Describes process for withdrawals, returns, and declinations
- Includes policies to guide, manage, and monitor the award and administration of grants and cooperative agreements
TYPES OF FUNDING OPPORTUNITIES

**Funding Opportunities**

- **Program Descriptions**
  - Proposals for a Program Description must follow the instructions in the PAPPG.

- **Program Announcements**
  - Proposals for a Program Announcement must follow the instructions in the PAPPG.

- **Program Solicitations**
  - Proposals must follow the instructions in the Program Solicitation; the instructions in the PAPPG apply unless otherwise stated in the solicitation.

- **Dear Colleague Letters**
  - Dear Colleague Letters are notifications of opportunities or special competitions for supplements to existing NSF awards.
TYPES OF NSF PROPOSALS

• Research
• RAPID & EAGER
• RAISE
• GOALI
• Ideas Lab
• FASED
• Conferences
• Equipment
• Travel
• Facility/Center
• Fellowships
NSF PROPOSAL & AWARD PROCESS TIMELINE

1. NSF Announces Opportunity
2. Research & Educational Communities
3. Submit
4. NSF Program Officer
5. Ad Hoc, Panel, Combination, Internal
6. Program Officer Analysis and Recommendations
7. DD Concur
8. Organization
9. Award via DGA
10. Proposal Receipt at NSF

- 90 Days: Proposal Preparation
- 6 Months: Proposal Receipt to DD Concurrence of PO Recommendation
- 30 Days: DGA Review & Processing

Can be returned without review/withdrawn
WHAT TO LOOK FOR IN A PROGRAM ANNOUNCEMENT

- Goal of Program
- Eligibility
- Special proposal preparation and/or award requirements
Antarctic Research

PROGRAM SOLICITATION
NSF 17-543

REPLACES DOCUMENT(S):
NSF 16-541

National Science Foundation
Directorate for Geosciences
Division of Polar Programs

Full Proposal Deadline(s) (due by 5 p.m. submitter’s local time):
May 23, 2017
### Award Information

- **Anticipated Type of Award:** Standard Grant or Continuing Grant
- **Estimated Number of Awards:** 50
- **Anticipated Funding Amount:** $55,000,000

The Antarctic Sciences Section anticipates committing approximately $55M as either standard or continuing awards made in response to this solicitation contingent on the availability of funds.
Eligibility information for institutions/PIs submitting proposals

Eligibility Information

Who May Submit Proposals:

The categories of proposers eligible to submit proposals to the National Science Foundation are identified in the NSF Proposal & Award Policies & Procedures Guide (PAPPG), Chapter I.E.

Who May Serve as PI:

There are no restrictions or limits.

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.
Proposals may be submitted at any time.
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 not be accepted or will be returned without review by NSF. The deadline date will be waived only in extenuating circumstances. Such a deviation only may be authorized in accordance with Chapter II.A.
TYPES OF PROPOSAL SUBMISSIONS

DEADLINE DATES

Proposals will not be accepted after this date and time (5pm submitter’s local time)

F. When to Submit Proposals

Proposers should allow adequate time for processing of proposals (see Chapter I.H 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 not be accepted or will be returned without review by NSF. The deadline date will be waived only in extenuating circumstances. Such a deviation only may be authorized in accordance with Chapter II.A.
Types of Proposal Submissions

Submission Windows

Proposals will not be accepted after this date and time (5pm submitter’s local time)

3. 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.
LETTERS OF INTENT

Enables better management of reviewers and panelists

1. Letters of Intent

Some NSF program solicitations require or request submission of a letter of intent (LOI) in advance of submission of a full proposal. An LOI is not a binding document. The predominant reason for its use is to help NSF program staff gauge the size and range of the competition, enabling earlier selection and better management of reviewers and panelists. In addition, the information contained in an LOI is used to help avoid potential conflicts of interest in the review process.

An LOI normally contains the Principal Investigator's (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. An LOI is not externally evaluated or used to decide on funding. The requirement to submit an LOI will be identified in the program solicitation, and such letters are submitted electronically to NSF. Failure to submit a required LOI identified in a program solicitation will result in a full proposal not being accepted or returned without review.
TYPES OF PROPOSAL SUBMISSIONS

PRELIMINARY PROPOSALS

Sometimes required, sometimes optional

Some NSF program solicitations require or request submission of a preliminary proposal in advance of submission of a full proposal. The three predominant reasons for requiring submission of a preliminary proposal are to:

- reduce the proposers’ unnecessary effort in proposal preparation when the chance of success is very small. This is particularly true of exploratory initiatives when the community senses that a major new direction is being identified, or competitions that will result in a small number of awards;
- increase the overall quality of the full submission; and
- assist NSF program staff in managing the review process and in the selection of reviewers.
• Proposals that do not contain the following required sections may 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)
SINGLE COPY DOCUMENTS

• Some proposal documents are for “NSF Use Only” and are not provided to reviewers
  ▪ Authorization to deviate from proposal preparation requirements
  ▪ List of suggested reviewers to include or not to include
  ▪ Proprietary or privileged information
  ▪ Proposal certifications
  ▪ Information about collaborators and other affiliations
Cover Sheet *(Required)*
Many of the boxes on the cover sheet are electronically pre-filled as part of the Fastlane login process.

Example from FastLane
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.

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**b. Project Summary**

Each proposal must contain a summary of the proposed project not more than one page in length. The Project Summary consists of an overview, a statement on the intellectual merit of the proposed activity, and a statement on the broader impacts of the proposed activity.

The overview includes a description of the activity that would result if the proposal were funded and a statement of objectives and methods to be employed. The statement on intellectual merit should describe the potential of the proposed activity to advance knowledge. The statement on broader impacts should describe the potential of the proposed activity to benefit society and contribute to the achievement of specific, desired societal outcomes.

The Project Summary should be written in the third person, informative to other persons working in the same or related fields, and, insofar as possible, understandable to a scientifically or technically literate lay reader. It should not be an abstract of the proposal.

The Project Summary may ONLY be uploaded as a Supplementary Document if use of special characters is necessary. Such Project Summaries must be formatted with separate headings for Overview, Intellectual Merit and Broader Impacts. Failure to include these headings will result in the proposal being returned without review.

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**c. Table of Contents**

A Table of Contents is automatically generated for the proposal. The proposer cannot edit this form.

**d. Project Description (including Results from Prior NSF Support)**

(i) Content

The Project Description should provide a clear statement of the work to be undertaken and must include the objectives for the period of the proposed work and expected significance, the relationship of this work to the present state of knowledge in the field, as well as to work in progress by the PI under other support.

The Project Description should outline the general plan of work, including the broad design of activities to be undertaken, and, where appropriate, provide a clear description of experimental methods and procedures. 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. The project activities may be based on previously established and/or innovative methods and approaches, but

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1 If the proposal includes use of vertebrate animals, supplemental information is required. See Chapter II.D.4 for additional information.

10 If the proposal includes use of human subjects, supplemental information is required. See Chapter II.D.5 for additional information.
**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.

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Text from the PAPPG
References Cited *(Required)*

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

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

<table>
<thead>
<tr>
<th>1. Biographical Sketch(es)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(i) Senior Personnel</td>
</tr>
</tbody>
</table>

A biographical sketch (limited to two pages) is required for each individual identified as senior personnel. (See Exhibit II-7 for the definitions of Senior Personnel.) Proposers may elect to use third-party solutions, such as NIH’s SciErv, to develop and maintain their biographical sketch. However, proposers are advised that they are still responsible for ensuring that biographical sketches created using third-party solutions are compliant with NSF proposal preparation requirements.

The following information must be provided in the order and format specified below. Inclusion of additional information beyond what is specified below may result in the proposal being returned without review.

Do not submit any personal information in the biographical sketch. This includes items such as: home address; home telephone, fax, or cell phone numbers; home email address; driver’s license number; marital status; personal hobbies; and the like. Such personal information is not appropriate for the biographical sketch and is not relevant to the merits of the proposal. NSF is not responsible or in any way liable for the release of such material. (See also Chapter III.H).

(a) Professional Preparation

A list of the individual’s undergraduate and graduate education and postdoctoral training (including location) as indicated below:

<table>
<thead>
<tr>
<th>Undergraduate Institution(s)</th>
<th>Location</th>
<th>Major</th>
<th>Degree &amp; Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graduate Institution(s)</td>
<td>Location</td>
<td>Major</td>
<td>Degree &amp; Year</td>
</tr>
<tr>
<td>Postdoctoral Institution(s)</td>
<td>Location</td>
<td>Area</td>
<td>Inclusive Dates (Years)</td>
</tr>
</tbody>
</table>

(b) Appointments

A list, in reverse chronological order, of all the individual’s academic/professional appointments beginning with the current appointment.

(c) Products

A list of (i) up to five products most closely related to the proposed project, and (ii) up to five other significant products, whether or not related to the proposed project. Acceptable products must be citable and accessible including but not limited to publications, data sets, software, patents, and copyrights. Unacceptable products are unpublished documents not yet submitted for publication, invited lectures, and additional lists of products. Only the list of ten will be used in the review of the proposal.

Each product must include full citation information including (where applicable and practicable) names of all authors, date of publication or release, title, title of enclosing work such as journal or book, volume, issue, pages, website and URL or other Persistent Identifier.

If only publications are included, the heading “Publications” may be used for this section of the Biographical Sketch.

(d) Synergistic Activities

A list of up to five examples that demonstrate the broader impact of the individual’s professional and scholarly activities that focuses on the integration and transfer of knowledge as well as its creation.

Text from the PAPPG
SECTIONS OF AN NSF PROPOSAL

**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.

Proposals containing sub-awards must include a separate budget justification of no more than three pages for each sub-award.

Text from FastLane
BUDGETARY GUIDELINES

Information regarding budgetary guidelines can be found in PAPPG as well as NSF program solicitations.

<table>
<thead>
<tr>
<th>Amounts should be:</th>
<th>Eligible costs consist of:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Realistic and reasonable</td>
<td>• Personnel</td>
</tr>
<tr>
<td>• Well-justified and should establish need</td>
<td>• Equipment</td>
</tr>
<tr>
<td>• Consistent with program guidelines</td>
<td>• Travel</td>
</tr>
<tr>
<td></td>
<td>• Participant support</td>
</tr>
<tr>
<td></td>
<td>• Other direct costs (e.g., sub-awards, consultant services, computer services, and publications costs)</td>
</tr>
</tbody>
</table>
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.

**Facilities, Equipment, and Other Resources**

**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 PAPPG 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 PAPPG, Chapter II.C.2.j.

j. Special Information and Supplementary Documentation

Except as specified below, special information and supplementary documentation must be included as part of the Project Description (or part of the budget justification), if it is relevant to determining the quality of the proposed work. Information submitted in the following areas is not considered part of the 15-page Project Description limitation. This Special Information and Supplementary Documentation section also is not considered an appendix. Specific guidance on the need for additional documentation may be obtained from the organization’s SPO or in the references cited below.

- Postdoctoral Researcher Mentoring Plan. Each proposal that requests funding to support postdoctoral researchers must upload under “Mentoring Plan” in the supplementary documentation section of FastLane, a description of the mentoring activities that will be provided for such individuals. In no more than one page, the mentoring plan must describe the mentoring that will be provided to all postdoctoral researchers supported by the project, regardless of whether they reside at the submitting organization, any subrecipient organization, or at any organization participating in a simultaneously submitted collaborative proposal. Proposers are advised that the mentoring plan must not be used to circumvent the 15-page Project Description limitation. See Chapter II.D.5 for additional information on collaborative proposals. Mentoring activities provided to postdoctoral researchers supported on the project will be evaluated under the Broader Impacts review criterion.

Examples of mentoring activities include, but are not limited to: career counseling; training in preparation of grant proposals, publications and presentations; guidance on ways to improve teaching and mentoring skills; guidance on how to effectively collaborate with researchers from diverse backgrounds and disciplinary areas; and training in responsible professional practices.

- Plans for data management and sharing of the products of research. Proposals must include a document of no more than two pages uploaded under “Data Management Plan” in the supplementary documentation section of FastLane. This supplementary document should describe how the proposal will conform to NSF policy on the dissemination and sharing of research results (see Chapter XI.D.4), and may include:
  1. the types of data, samples, physical collections, software, curriculum materials, and other materials to be produced in the course of the project;
  2. the standards to be used for data and metadata format and content (where applicable).
SPECIAL INFORMATION AND SUPPLEMENTARY DOCUMENTATION

Letters of Collaboration

Data Management Plans

Post-doctoral Mentorship 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

• 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.
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
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 as 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

Dissemination and Sharing of Research Results

NSF DATA SHARING POLICY

Investigators are expected to share with other researchers, at no more than incremental cost and within a reasonable time, the primary data, datasets, physical collections and other supporting materials created or organized in the course of work under NSF grants. Investigators are expected to acknowledge and facilitate such sharing. See Award & Administration Guide (A&AG) Chapter 2.A.4.

NSF DATA MANAGEMENT PLAN REQUIREMENTS

Proposals submitted or due on or after January 18, 2011, must include a supplementary document of no more than two pages labeled “Data Management Plan.” This supplementary document should describe how the proposal will conform to NSF policy on the dissemination and sharing of research results. See Grant Proposal Guide (GPG) Chapter II.C.2 for full policy implementation.

REQUIREMENTS BY DIRECTORATE, OFFICE, DIVISION, PROGRAM, OR OTHER NSF UNIT

Links to data management requirements and plans relevant to specific Directorates, Offices, Divisionals, Programs, or other NSF units, are provided below. If guidance specific to the program is not provided, then the requirements established in Grant Proposal Guide (GPG) Chapter II.C.2 apply.

Please note that if a specific program solicitation provides guidance on preparation of data management plans, such guidance must be followed.

- Biological Sciences Directorate (BIO)
  - Directorate-wide Guidance
- Computer & Information Science & Engineering (CISE)
  - Directorate-wide Guidance
- Education & Human Resources Directorate (EHR)
  - Directorate-wide Guidance
- Engineering Directorate (ENG)
  - Directorate-wide Guidance
- Geosciences Directorate (GEO)

www.nsf.gov/bfa/dias/policy/dmp.jsp
SPECIAL GUIDELINES

• Collaborative Proposals
• Equipment
• Vertebrate Animals
• Human Subjects
MERIT REVIEW
PROPOSAL REVIEW AND PROCESSING

NSF Announces Opportunity

Research & Educational Communities

Submit

Can be returned without review/withdrawn

Award via DGA

Organization

Decline

Proposal Receipt at NSF

90 Days Proposal Preparation

6 Months Proposal Receipt to DD Concurrence of PO Recommendation

30 Days DGA Review & Processing

Program Officer Analysis and Recommendations

Ad Hoc

Panel

Combination

Internal

NSF Program Officer

DD Concur

Organization
• Upon receipt at NSF, proposals are routed to the PI-designated program office.

• NSF staff conducts a preliminary review to ensure they are:
  ▪ Complete;
  ▪ Timely; and
  ▪ Conform to proposal preparation requirements.

• NSF may not accept a proposal or may return it without review if it does not meet the requirements above.

• If the proposal is outside the scope of the program, the program officer usually tries his/her best to transfer it to the most appropriate program for evaluation.
The PAPPG contains detailed guidelines on proposal preparation and a description of the Merit Review Criteria:

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.
If it does not contain all of the required sections, as described in PAPPG Chapter II.C.2.

- Per the PAPPG Project Summary Requirement:
  ▪ Must include an overview and separate statements on Intellectual Merit and Broader Impacts.

- Per the PAPPG Project Description Requirement:
  ▪ Must contain, as a separate section within the narrative, a section labeled “Broader Impacts of the Proposed Work.”
  ▪ Must include results from prior NSF support with start date in the past 5 years.

- Per the PAPPG Data Management Plan Requirement:
  ▪ Must be included as a supplementary document.

- Postdoctoral Researcher Mentoring Requirement (if applicable):
  ▪ Proposals that include postdoctoral researchers must include a description of the mentoring activities that will be provided for such individuals.
OTHER REASONS FOR RETURN OF PROPOSALS WITHOUT REVIEW

• It is inappropriate for funding by the National Science Foundation.

• It is submitted with insufficient lead time before the activity is scheduled to begin.

• It is a full proposal that was submitted by a proposer that has received a “not invited” response to the submission of a preliminary proposal.

• It is a duplicate of, or substantially similar to, a proposal already under consideration by NSF from the same submitter.
OTHER REASONS FOR RETURN OF PROPOSALS WITHOUT REVIEW

• It does not meet NSF proposal preparation requirements, such as page limitations, formatting instructions, and electronic submission, as specified in the PAPPG or program solicitation.

• It is not responsive to the PAPPG or program announcement/solicitation.

• It does not meet an announced proposal deadline date (and time, where specified).

• It was previously reviewed and declined and has not been substantially revised.

• It duplicates another proposal that was already awarded.
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 institution to conduct the proposed activities?
5. Are there adequate resources available to the PI (either at the home institution or through collaborations) to carry out the proposed activities?

In the context of the five review elements, please evaluate the strengths and weaknesses of the proposal with respect to intellectual merit.

In the context of the five review elements, please evaluate the strengths and weaknesses of the proposal with respect to broader impacts.

Please evaluate the strengths and weaknesses of the proposal with respect to any additional solicitation-specific review criteria, if applicable.

This are the strengths and weaknesses of the proposal with respect to
PROPOSAL REVIEW AND PROCESSING

NSF Announces Opportunity

Research & Educational Communities

Submit

NSF Program Officer

Ad Hoc
Panel
Combination
Internal

Program Officer Analysis and Recommendations

DD Concur

Organization

Can be returned without review/withdrawn

Award Via DGA

Decline

Proposal Receipt at NSF

90 Days Proposal Preparation

6 Months Proposal Receipt to DD Concurrence of PO Recommendation

30 Days DGA Review & Processing

Award

DD Concur
TYPES OF REVIEWS

• *Ad hoc*: Proposals sent out for review
  ▪ *Ad hoc* reviewers usually have specific expertise in a field related to the proposal.
  ▪ Some proposals may undergo *ad hoc* review only.

• Panel: Face-to-face sessions conducted by reviewers mainly at NSF but also in other settings
  ▪ Panel reviewers usually have a broader scientific knowledge.
  ▪ Some proposals may undergo only a panel review.
  ▪ Some proposals may undergo reviews by multiple panels (especially for those proposals with crosscutting themes).
TYPES OF REVIEWS

• Combination: Some proposals may undergo supplemental ad hoc reviews before or after a panel review.

• Internal: Review by NSF Program Officers only
  ▪ Examples of internally reviewed proposals:
    • Proposals submitted to Rapid Response Research Grants (RAPID)
    • Proposals submitted to Early-concept Grants for Exploratory Research (EAGER)
    • Proposals submitted to Research Advanced by Interdisciplinary Science and Engineering (RAISE)
    • Proposals for conferences under $50,000
HOW ARE REVIEWERS SELECTED?

• Types of Reviewers Recruited:
  ▪ Reviewers with specific content expertise
  ▪ Reviewers with general science or education expertise

• Sources of Reviewers:
  ▪ Program Officer’s knowledge of the research area
  ▪ References listed in proposal
  ▪ Recent professional society programs
  ▪ Computer searches of S&E journal articles related to the proposal
  ▪ Former reviewers
  ▪ Reviewer recommendations included in proposal or sent by email

• Three or more external reviewers per proposal are selected.
HOW DO I BECOME A REVIEWER?

- Contact the NSF Program Officer(s) of the program(s) that fit your expertise:
  - Introduce yourself and your research experience.
  - Tell them you want to become a reviewer for their program.
  - Ask them when the next panel will be held.
  - Offer to send a 2-page CV with current contact information.
  - Stay in touch if you don’t hear back right away.
WHAT IS THE ROLE OF THE REVIEWER?

• Review all proposal material and consider:
  ▪ The two NSF merit review criteria and any program specific criteria.
  ▪ The adequacy of the proposed project plan including the budget, resources, and timeline.
  ▪ The priorities of the scientific field and of the NSF program.
  ▪ The potential risks and benefits of the project.

• Make independent written comments on the quality of the proposal content.
WHAT IS THE ROLE OF THE REVIEW PANEL?

- Discuss the merits of the proposal with the other panelists
- Write a summary based on that discussion
- Provide some indication of the relative merits of different proposals considered
WHY SERVE ON AN NSF PANEL?

• Gain first-hand knowledge of the merit review process

• Learn about common problems with proposals

• Discover proposal writing strategies

• Meet colleagues and NSF Program Officers managing the programs related to your research
MANAGING CONFLICTS OF INTEREST IN THE REVIEW PROCESS

• The primary purpose is to remove or limit the influence of ties to an applicant institution or investigator that could affect reviewer advice.

• The secondary purpose is to preserve the trust of the scientific community, Congress, and the general public in the integrity, effectiveness, and evenhandedness of NSF’s merit review process.
AFFILIATIONS WITH APPLICANT INSTITUTIONS

• Examples:
  ▪ Current employment at the institution
  ▪ Other association with the institution, such as being a consultant
  ▪ Being considered for employment or any formal or informal reemployment arrangement at the institution
  ▪ Any office, governing board membership, or relevant committee membership at the institution
PERSONAL RELATIONSHIPS WITH INVESTIGATOR OR PROJECT DIRECTOR

• Examples:
  ▪ Known family or marriage relationship
  ▪ Business partner
  ▪ Past or present thesis advisor or thesis student
  ▪ Collaboration on a project or book, article, or paper within the last 48 months
  ▪ Co-edited a journal, compendium, or conference proceedings within the last 24 months
PROPOSAL REVIEW AND PROCESSING

1. NSF Announces Opportunity
2. Research & Educational Communities
3. Submit
4. NSF Program Officer
5. Ad Hoc
6. Panel
7. Combination
8. Internal

Program Officer Analysis and Recommendations

DD Concur

Award Via DGA

Organization

Decline

Can be returned without review/withdrawn

Proposal Receipt at NSF

90 Days
Proposal Preparation

6 Months
Proposal Receipt to DD Concurrence of PO Recommendation

30 Days
DD Concur

Award: DGA Review & Processing
FUNDING DECISIONS

• The merit review panel provides:
  ▪ Review of the proposal and a recommendation on funding.
  ▪ Feedback (strengths and weaknesses) to the proposers.

• NSF Program Officers make funding recommendations guided by program goals and portfolio considerations.

• NSF Division Directors either concur or reject the Program Officers’ funding recommendations.
**FEEDBACK FROM MERIT REVIEW**

- Reviewer ratings (such as: E, V, G, F, P)
- Analysis of how well proposal addresses both review criteria: Intellectual Merit and Broader Impacts
- Proposal strengths and weaknesses
- Reasons for a declination (if applicable)

*If you have any questions, contact the cognizant Program Officer*
DOCUMENTATION FROM MERIT REVIEW

- Verbatim copies of individual reviews, excluding reviewer identities
- Panel Summary or Summaries (if panel review was used)
- Context Statement (usually)
- PO to PI comments (formal or informal, written, email or verbal) as necessary to explain a decision
EXAMPLES OF REASONS FOR DECLINE

• The proposal was not considered to be competitive based on the merit review criteria and the program office concurred.

• The proposal had flaws or issues identified by the program officer.

• The program funds were not adequate to fund all competitive proposals.
REVISIONS AND RESUBMISSIONS

• Points to consider:
  - Do the reviewers and the NSF Program Officer identify significant strengths in your proposal?
  - Can you address the weaknesses that reviewers and the Program Officer identified?
  - Are there other ways you or your colleagues think you can strengthen a resubmission?

Again, if you have questions, contact the cognizant Program Officer.
NSF RECONSIDERATION PROCESS

Explanation from Program Officer and/or Division Director

Written request for reconsideration to Assistant Director within 90 days of the decision

Request from organization to Deputy Director of NSF
POSSIBLE CONSIDERATIONS FOR FUNDING A COMPETITIVE PROPOSAL

• Addresses all review criteria
• Likely high impact
• Broadening participation
• Educational impact
• Impact on institution/state
• Special programmatic considerations (e.g. CAREER/RUI/EPSCoR)
• Other support for PI
• “Launching” versus “Maintaining”
• Portfolio balance
PROPOSAL REVIEW AND PROCESSING

1. NSF Announces Opportunity
2. Research & Educational Communities
3. NSF Program Officer
4. Can be returned without review/withdrawn
5. Program Officer Analysis and Recommendations
6. DD Concur
7. Award Via DGA
8. Organization
9. Decline
10. Proposal Receipt at NSF

Timeline:
- Proposal Preparation: 90 Days
- Proposal Receipt to DD Concurrence of PO Recommendation: 6 Months
- DGA Review & Processing: 30 Days
ISSUING THE AWARD

- NSF's Division of Grants and Agreements (DGA) reviews the recommendation from the program office for business, financial, and policy implications.

- NSF's grants and agreements officers make the official award as long as:
  - The institution has an adequate grants management capacity.
  - The PI/Co-PIs do not have overdue annual or final reports.
  - There are no other outstanding issues with the institution or PI.
FOR MORE INFORMATION

Go to NSF’s Home Page (www.nsf.gov)
AWARD MANAGEMENT
NSF AWARD PROCESS - OVERVIEW

Proposal Preparation/Submission

Program Review

Recommend?

YES → Submit to DGA for Review

3 Branches
- EHR, BIO & SBE
- MPS & GEO
- ENG, CISE & OIIA

Specialist Admin Review

Award?

YES → Award Notice

Grants Officer Approval

NO → Declination Letter

From the Program Office

Declination Letter

From DGA
What Kind of Awards are Issued by DGA?

- **Assistance Awards** - the principal purpose of which is to transfer anything of value from NSF to the grantee for them to carry out a public purpose; and not to acquire property or services for NSF’s direct benefit or use.
  - **Grants** *(Standard and Continuing)*
  - **Cooperative Agreements**
  - **Fellowships**

**DGA Mission Statement**

“Support the issuance of NSF assistance awards and other agreements by providing business, financial, and award administration assistance from pre-award through closeout.”
COMMON POST AWARD ADMINISTRATIVE ITEMS

No Cost Extensions

• Awards with $0 balances cannot be extended.

• Awards cannot be extended just to use up remaining funds.

Overdue Project Reports

• No future funding/No administrative actions

• Can impact other PI’s awards

Award Transfers

• Grants are awarded to the Organization, not the PI
## POST AWARD NOTIFICATIONS AND REQUESTS

### Consolidated List of Notifications and Requests (not all-inclusive)

<table>
<thead>
<tr>
<th><strong>Type of Grantee Notification = Awardee Authority</strong></th>
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<th><strong>Who Reviews</strong></th>
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<td>PI</td>
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<tr>
<td>Significant Changes, Delays or Events of Unusual Interest</td>
<td>PI</td>
<td>Program Officer</td>
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<tr>
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<td>AOR</td>
<td>Program Officer</td>
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<tr>
<td>Conflicts of Interest that cannot be satisfactorily managed, imposition of conditions or restrictions when a conflict of interest exists</td>
<td>AOR</td>
<td>OGC</td>
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<table>
<thead>
<tr>
<th><strong>Type of Grantee Request = NSF Approval Required</strong></th>
<th><strong>Submitted By</strong></th>
<th><strong>Who Reviews and Recommends?</strong></th>
<th><strong>Who Approves?</strong></th>
<th><strong>Amendment or Notice?</strong></th>
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<td>Subawarding, Transferring or Contracting Out Part of an NSF Award</td>
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<td>Change in Person-Months Devoted to the Project</td>
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<tr>
<td>Addition of co-PI/co-PD</td>
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<td>Amendment</td>
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<tr>
<td>Withdrawal of PI/PD or co-PI/co-PD</td>
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<td>Amendment</td>
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<tr>
<td>Substitute (Change) PI/PD or co-PI/co-PD</td>
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<td>Program Officer</td>
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<td>Amendment</td>
</tr>
<tr>
<td>PI/PD or co-PI/co-PD Transfer from One Organization to Another</td>
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<td>Program Officer</td>
<td>DGA</td>
<td>Old Organization, no notice, check research.gov</td>
</tr>
<tr>
<td>Pre-award Costs in Excess of 90 Days</td>
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<tr>
<td>Salaries of Administrative or Clerical Staff</td>
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<td>Rearrangements/Alterations (Construction)</td>
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<td>Relocation of Funds for Participant Support Costs</td>
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<td>Program Officer</td>
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<tr>
<td>Additional categories of participant support costs other than those described in 2 CFR § 200.75</td>
<td>AOR</td>
<td>Program Officer</td>
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</tr>
<tr>
<td>Change to cost sharing commitments reflected on Line M of the NSF award budget</td>
<td><strong>AOR, via email</strong></td>
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<tr>
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<td>Amendment</td>
</tr>
</tbody>
</table>

### Notes:
- *You will always be notified when the award is amendment. Program Officer’s have the option to send or not send approval notices. Check research.gov for the status of your request.*
- **Requests to change cost share commitments must be emailed. Best practice is to email both the NSF Program Officer and the DGA Portfolio Manager**
CANCELLING APPROPRIATIONS

• Most NSF funds have a limited period of availability for expenditure (usually 6 years from the original appropriation year).

• NSF will notify grantees of any cancelling appropriations on open awards so grantees may properly and responsibly expend and drawdown funds before they cancel at the end of the fiscal year.

• Research.gov will block submission of a NCE if the revised end date extends the award beyond the appropriation cancellation date.

• Pay special attention to large dollar, standard grants
FEDERAL AWARDEE PERFORMANCE INFORMATION & INTEGRITY SYSTEM (FAPIIS)

• Federal agencies are required to report award terminations to FAPIIS in accordance with 2 CFR §200.340.

• Federal award recipients are required to self-report certain proceedings in accordance with 2 CFR §200, Appendix XII.

• Federal agencies are required to evaluate FAPIIS information prior to issuing new awards in accordance with 2 CFR §200.205.

• www.FAPIIS.gov a public website
GRANT OVERSIGHT AND NEW EFFICIENCY ACT (GONE)

• Federal agencies must submit a report to Congress of all Federal grant awards that expired on or before September 30, 2015 that are not closed.

• NSF cannot close awards where there is an overdue progress report

• Awards with overdue progress reports for more than 2 years will be listed on the GONE Act report
NSF MONITORING ACTIVITIES

• Programmatic Site Visits

• Division of Institution & Award Support (DIAS) contracted desk reviews

• DIAS Advanced Monitoring Site Visit Program in conjunction with the Division of Grants & Agreements (DGA)

• Division of Financial Management (DFM) baseline monitoring including active payment monitoring and post award financial activity reviews

• Office of Inspector General (OIG) audits
AWARDEE RESPONSIBILITIES – KEYS TO SUCCESS

• Read your award notice carefully... It may include project or award-specific requirements, such as:
  ▪ Funding restrictions
  ▪ Special reporting requirements
  ▪ Special terms and conditions or other instructions

• Manage funds prudently:
  ▪ Allowable/Allocable/Reasonable/Necessary

• Know who to contact for relevant information. In general...
  ▪ **SRO:** *DGA Portfolio Manager for award specific questions.* Always include the award number in any email or communications to assist us with responding to your inquiry.  
  *NSF Policy Office with general grant policy questions*
FOR MORE INFORMATION

ASK EARLY, ASK OFTEN!

policy@nsf.gov