

Spring 2022 NSF Grants Conference

Proposal Preparation





Panelists

Jean Feldman

Head, Policy Office, Division of Institution & Award Support; Office of Budget, Finance & Award Management

Randy Phelps

Staff Associate, Office of Integrative Activities; Office of the Director

Jennifer Wade

Program Director, Division of Earth Sciences, Directorate for Geosciences



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



“Ask Early, Ask Often!”

Find Funding Opportunities

The screenshot displays the National Science Foundation (NSF) website. At the top left is the NSF logo with the tagline "National Science Foundation WHERE DISCOVERIES BEGIN". To the right is a search bar and "Contact | Help" links. A navigation bar contains "HOME", "Research Areas", "Funding", "Awards", "Document Library", "News", and "About NSF". The "Funding" menu is open, showing a list of links: "About Funding", "Browse Funding Opportunities A-Z", "Due Dates", "Find Funding", "Merit Review", "Policies and Procedures", "Preparing Proposals", "Recent Opportunities", and "Transformative Research". A "RELATED LINKS" section includes "Proposal and Award Policies and Procedures Guide (PAPPG)", "Grant Proposal Guide (GPG)", "Research.gov", "FastLane", "FUNDING OPPORTUNITIES FOR Graduate Students", "K-12 Educators", "Postdoctoral Fellows", and "Undergraduate Students". A red circle highlights the "Find Funding" link and the "RELATED LINKS" section. A "NEW" alert banner is visible on the left, and a "FULL STORY" button is on the right. The footer contains "Advancing the Sciences", "Funding & Supporting", "Inspiring & Educating", and a "- HIDE" button.



Find Funding Opportunities

NSF Funding & Research Community

SPECIAL NOTICES

- [Information Regarding Court Orders and Injunctions Regarding Executive Order 14042](#)
- [Recent Scam Involving NSF's Name and Likeness](#)
- [Dear Colleague Letter: Research Protection](#)
- [Personnel Policy on Foreign Government Talent Recruitment Programs](#)
- [NSF Issues Revised Proposal & Award Policies & Procedures Guide \(PAPPG\) \(NSF 22-1\)](#)
- [NSF Responses to Natural Disasters](#)
- [Training in Responsible Conduct of Research – A Reminder of the NSF Requirement](#)
- [NSF and Congress: Latest Actions](#)
- [NSF Strategic Plan for FY 2018-2022](#)
- [Important information about DMARC and email delivery from NSF](#)

EVENT CALENDAR

- Apr** APRIL 20, 2022 - APRIL 20, 2022
[National Science Foundation \(NSF\) Solicitation Webinar on Research Security Training for the U.S.](#)
WEBCAST
- Apr** APRIL 20, 2022 - APRIL 20, 2022
[Pathways to Enable Open-Source Ecosystems \(POSE\) Virtual Office Hour](#)
WEBCAST
- Apr** APRIL 21, 2022 - APRIL 21, 2022
[Human Networks and Data Science Program Office Hour](#)
OUTREACH



[STOP HARASSMENT](#)

FUNDING OPPORTUNITIES

Search Funding Opportunities

View by Program Area

[VIEW ALL FUNDING OPPORTUNITIES](#)

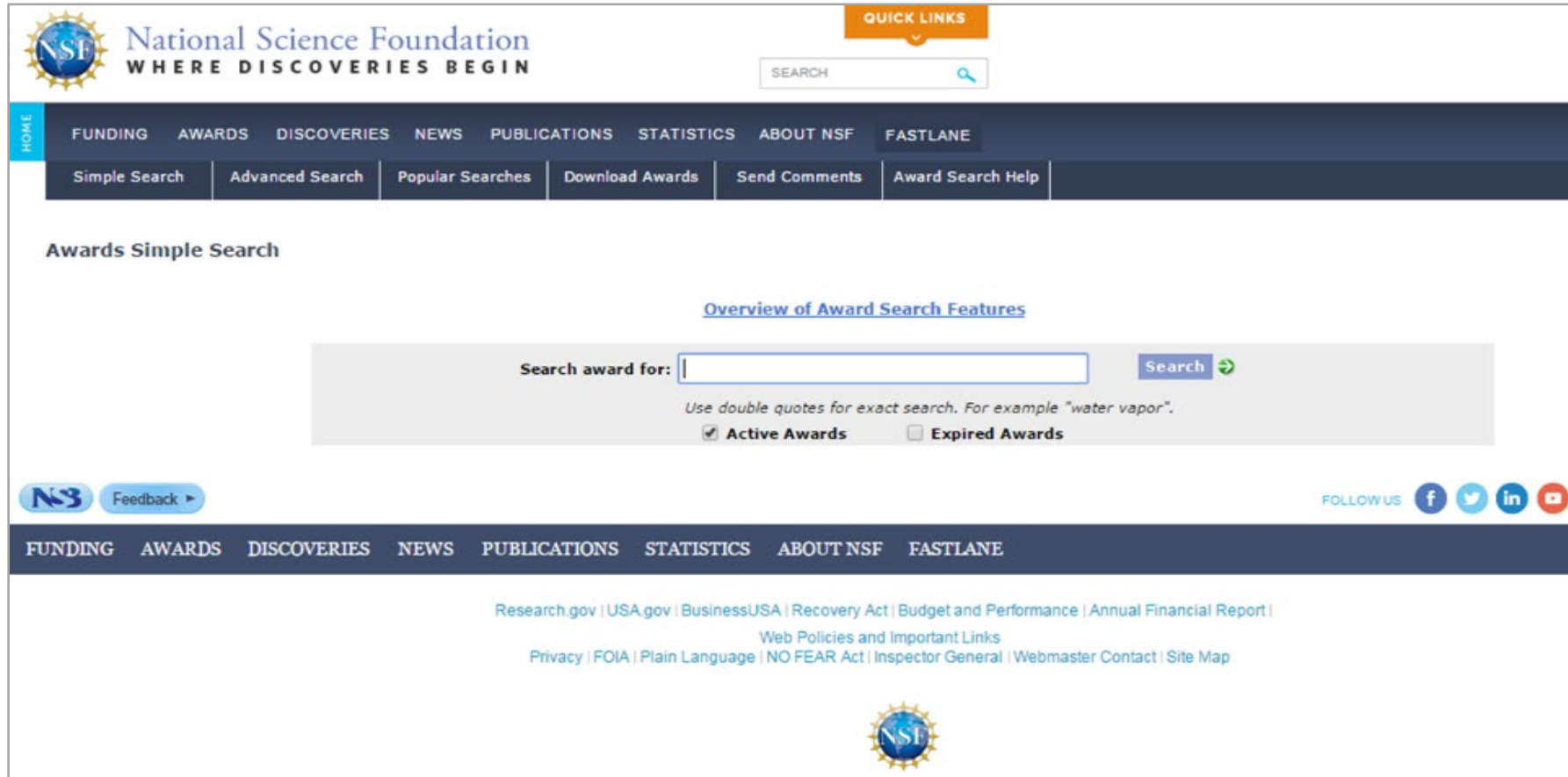
[Proposal and Award Policies and Procedures Guide](#)

[Prepare a Proposal](#)

[Upcoming Due Dates](#)

[Submit Proposal to FastLane](#)

NSF Award Search



The screenshot shows the NSF Award Search homepage. At the top left is the NSF logo with the tagline "National Science Foundation WHERE DISCOVERIES BEGIN". To the right is a "QUICK LINKS" dropdown menu and a search box. Below this is a navigation bar with links for HOME, FUNDING, AWARDS, DISCOVERIES, NEWS, PUBLICATIONS, STATISTICS, ABOUT NSF, and FASTLANE. A secondary navigation bar contains links for Simple Search, Advanced Search, Popular Searches, Download Awards, Send Comments, and Award Search Help. The main content area is titled "Awards Simple Search" and includes a link for "Overview of Award Search Features". The search interface features a "Search award for:" text box, a "Search" button with a green arrow, and a note: "Use double quotes for exact search. For example 'water vapor'". Below the search box are two checkboxes: "Active Awards" (checked) and "Expired Awards" (unchecked). At the bottom of the page, there is a "Feedback" button, social media icons for Facebook, Twitter, LinkedIn, and YouTube, and a footer with various links including Research.gov, USA.gov, BusinessUSA, Recovery Act, Budget and Performance, Annual Financial Report, Web Policies and Important Links, Privacy, FOIA, Plain Language, NO FEAR Act, Inspector General, Webmaster Contact, and Site Map. The NSF logo is also present at the bottom center.



Other Ways to Find Funding

Use the Search Feature in Grants.gov



The screenshot shows the Grants.gov website interface. At the top, there is a navigation bar with links for CONTACT US, MANAGE SUBSCRIPTIONS, REGISTER, and LOGIN. A search bar is located in the top right corner with the text "SEARCH: Grant Opportunities" and a "GO" button. Below the navigation bar, there is a main menu with links for HOME, ABOUT, SEARCH GRANTS, APPLICANTS, GRANTORS, SYSTEM-TO-SYSTEM, FORMS, OUTREACH, and SUPPORT. The main content area features a "Find Grants" section with a search button and a video player showing the Washington Monument. Below this is a "Find Open Grant Opportunities" section with tabs for NEWEST OPPORTUNITIES, BROWSE CATEGORIES, BROWSE AGENCIES, and BROWSE ELIGIBILITIES. A table lists several grant opportunities with columns for Funding Opportunity Number, Opportunity Title, and Agency. On the right side, there are sections for "Grants.gov Updates" and "Did You Know?" with links to related information.

Find Grants
SEARCH Grants.gov for your federal grants by keywords or more specific criteria. All discretionary grants offered by the 26 federal grant-making agencies can be found on Grants.gov. You do not have to register with Grants.gov to find grant opportunities.

[Search Grant Opportunities »](#)

Grants.gov Updates:
Grants.gov Scheduled Maintenance Outage: June 21-23, 2014.
For more information on scheduled maintenance outages and status updates, please visit the following:
[Grants.gov Calendar »](#)
[Grants.gov Blog »](#)

Did You Know?
Did you know new features were recently added? For a full description of the new enhancements covered in the Applicant Release Notes, [click here »](#)
Did you know that Grants.gov must receive verification of registration from SAM electronically before AORs can submit applications on Grants.gov? Please allow 24-48 hours from the date of the SAM email notification to complete the electronic process. To quickly and easily verify Grants.gov AOR status, [click here »](#)

Find Open Grant Opportunities

[NEWEST OPPORTUNITIES](#) [BROWSE CATEGORIES](#) [BROWSE AGENCIES](#) [BROWSE ELIGIBILITIES](#) [View More »](#)

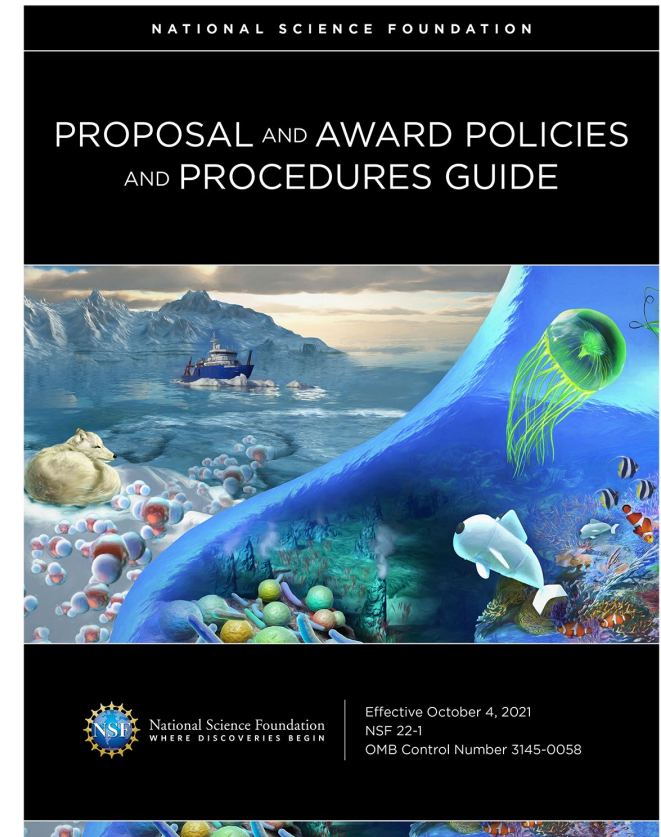
Funding Opportunity Number	Opportunity Title	Agency
RFA-263-14-000001	Local Scholarship Program	Egypt USAID-Cairo
NNH14ZDA001N-RST	ROSES 2014: Remote Sensing Theory for Earth Science	NASA Headquarters
CDC-RFA-DP14-1419PPHF14	PPHF 2014: Racial and Ethnic Approaches to Community Health (REACH) - financed in part by Prevention and Public Health Funding	Chronic Disease Prevention and Health Promotion
HHS-2014-ACL-CDAP-SO-0089	State Health Insurance Assistance Program Performance Improvement and Innovation Grant	Administration for Community Living
DARPA-BAA-14-46	DSO Office-Wide	DARPA - Defense Sciences



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
- Part II is NSF's award and administration guidelines





What is the Proposal & Award Policies & Procedures Guide? (cont'd)

- 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



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.



What to Look for in a Program Announcement or Solicitation



Sample Cover Page of a Solicitation

Faculty Early Career Development Program (CAREER)
Includes the description of NSF Presidential Early Career Awards for Scientists and Engineers (PECASE)

PROGRAM SOLICITATION
NSF 22-586

REPLACES DOCUMENT(S):
NSF 20-525



National Science Foundation
Directorate for Biological Sciences
Directorate for Computer and Information Science and Engineering
Directorate for Education and Human Resources
Directorate for Engineering
Directorate for Geosciences
Directorate for Mathematical and Physical Sciences
Directorate for Social, Behavioral and Economic Sciences
Office of Integrative Activities
Office of International Science and Engineering
Directorate for Technology, Innovation and Partnerships

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

July 27, 2022

Fourth Wednesday in July, Annually Thereafter

IMPORTANT INFORMATION AND REVISION NOTES

Deadline changed to the 4th Wednesday of July at 5:00pm local time. Changed from the 4th Monday of July.

Program Solicitation
Number

NSF Directorate(s)
and Offices
providing funding
for this opportunity

Important
Information and
Revision Notes



Sample Cover Page of a Solicitation

Number of awards
funded by the
program per year

Funds available to
the program per
year

Award Information

Anticipated Type of Award: Standard Grant or Continuing Grant

Estimated Number of Awards: 500

per year

Anticipated Funding Amount: \$250,000,000

This annual amount is approximate, includes new and continuing increments, and is subject to availability of funds.



Sample Cover Page of a Solicitation

Eligibility
information for
organizations/PIs
submitting
proposals



Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Institutions of Higher Education (IHEs) - Two- and four-year IHEs (including community colleges) accredited in, and having a campus located in the US, acting on behalf of their faculty members. Special Instructions for International Branch Campuses of US IHEs: If the proposal includes funding to be provided to an international branch campus of a US institution of higher education (including through use of subawards and consultant arrangements), the proposer must explain the benefit(s) to the project of performance at the international branch campus, and justify why the project activities cannot be performed at the US campus.
- Non-profit, non-academic organizations: Independent museums, observatories, research labs, professional societies and similar organizations in the U.S. associated with educational or research activities.

Who May Serve as PI:

A Principal Investigator (PI) may submit only one CAREER proposal per annual competition. In addition, a Principal Investigator may not participate in more than three CAREER competitions. Proposals that are not reviewed (i.e., are withdrawn before review or are returned without review) do not count toward the three-competition limit.

Limit on Number of Proposals per Organization:

There are no restrictions or limits.

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

An eligible Principal Investigator may submit only one CAREER proposal per annual competition. No co-PIs are permitted.

Types of Proposal Submissions

NO DEADLINES

Proposals may be submitted at any 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



TARGET DATES

Talk to the Program Office if you think you might miss the date

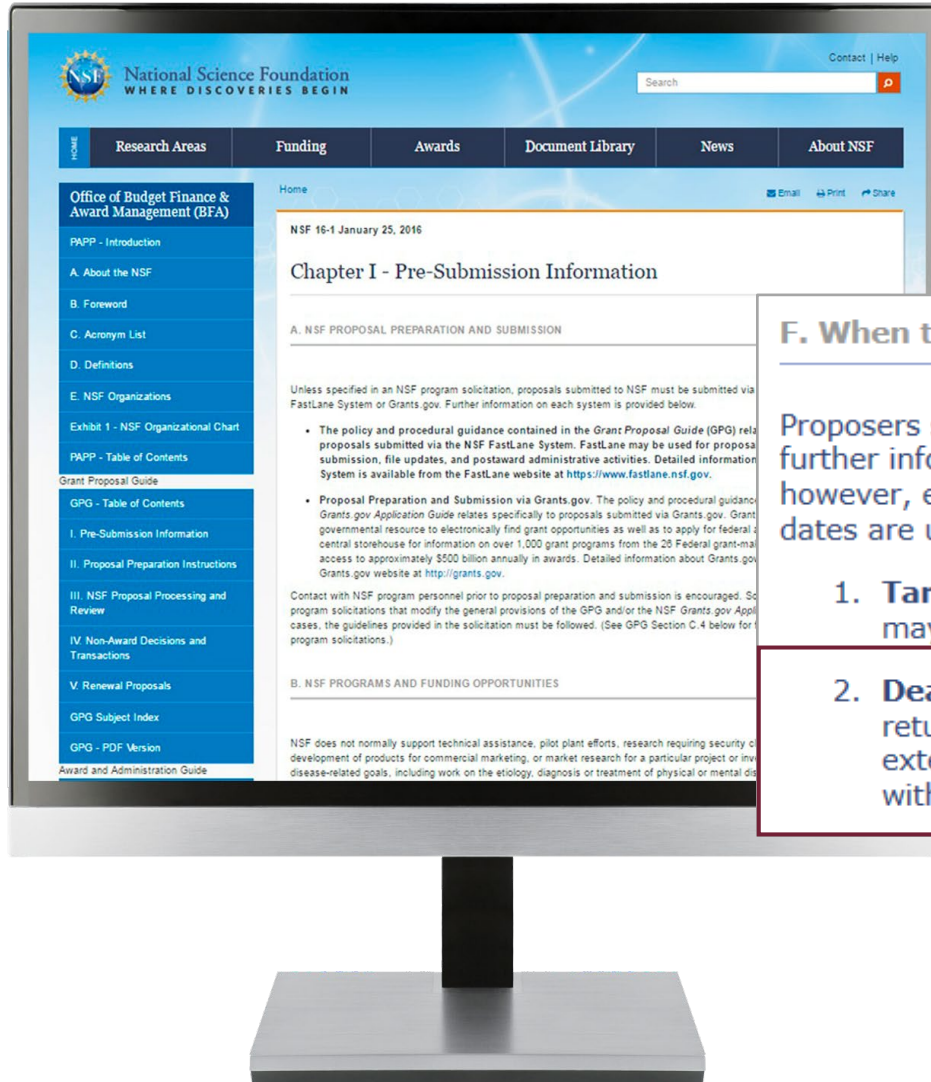
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Types of Proposal Submissions



DEADLINE DATES

Proposals will not be accepted after this date and time (5 p.m. submitter's local time)

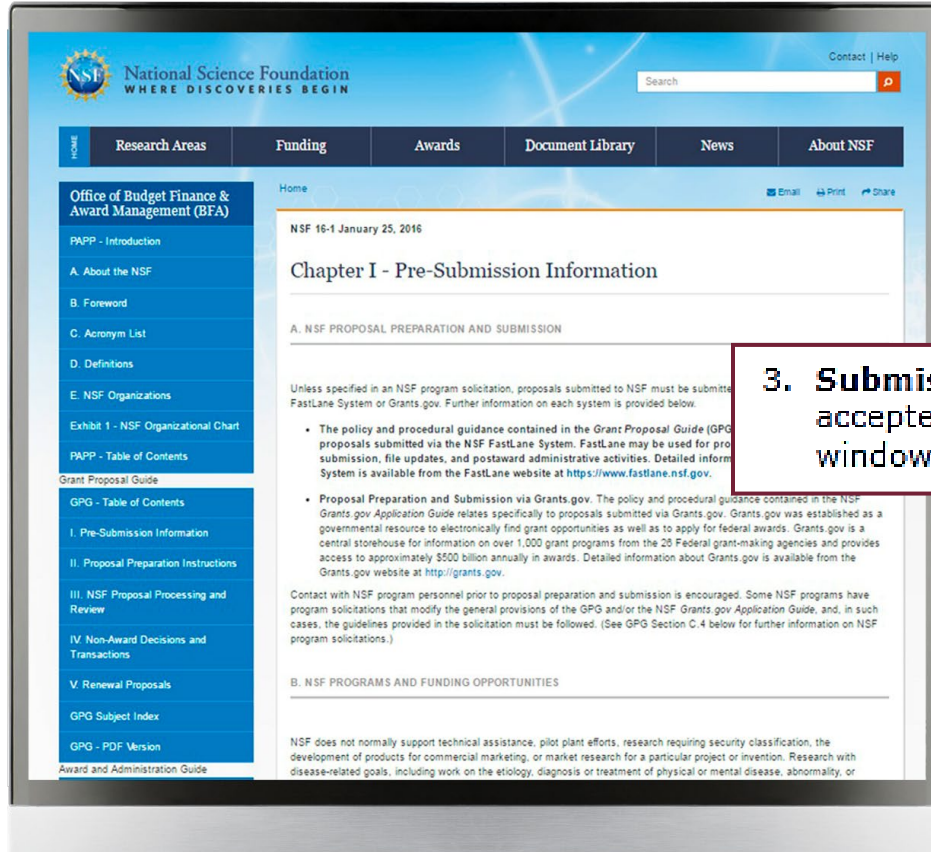
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Types of Proposal Submissions



SUBMISSION WINDOWS

Proposals will not be accepted after this date and time (5 p.m. submitter's local time)

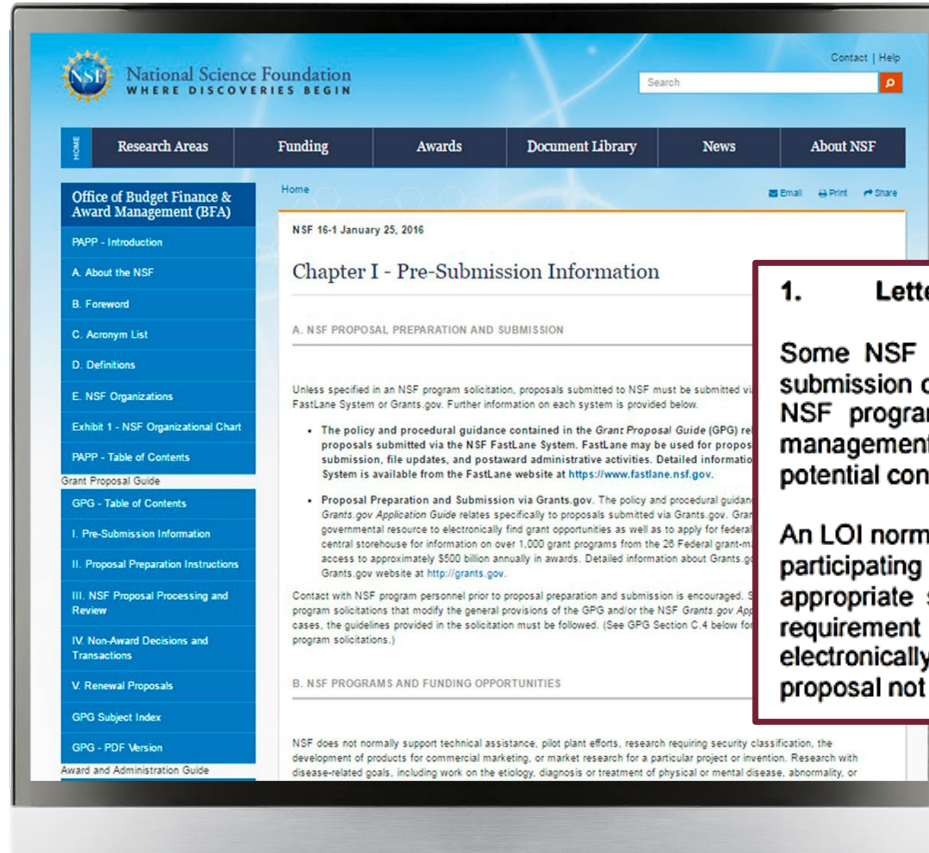
3. Submission windows: designated periods of time during which proposals will be accepted for review by NSF. It is NSF's policy that the end date of a submission window converts to, and is subject to, the same policies as a deadline date.



Types of Proposal Submissions

LETTERS OF INTENT

Enables better management of reviewers and panelists



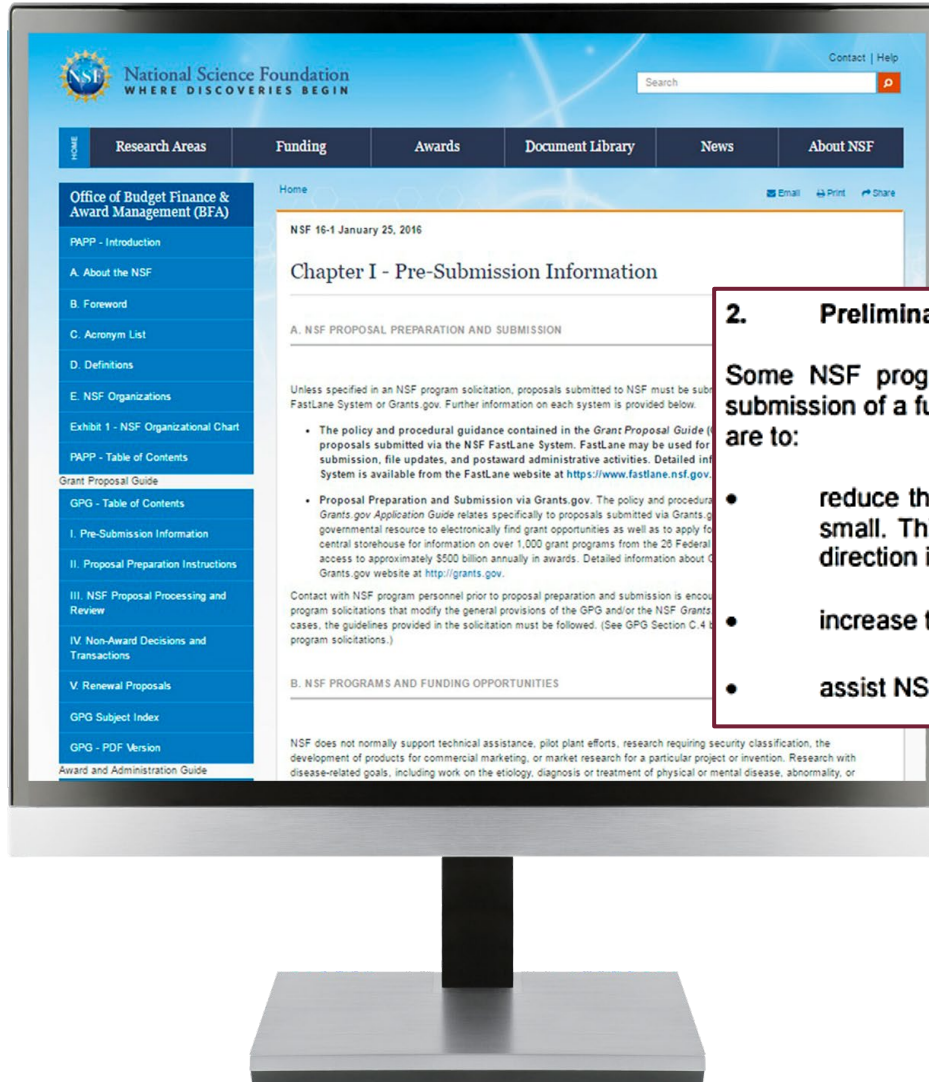
1. Letters of Intent

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

2. Preliminary Proposals

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.



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



Required Sections of a Research Proposal



- Cover Sheet
- 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)

Proposals that do not contain these required sections may not be accepted by FastLane or Research.gov



Sections of an NSF Proposal

Cover Sheet (Required)

- Many of the boxes on the cover sheet are electronically prefilled as part of the FastLane and Research.gov login process.

COVER SHEET FOR PROPOSAL TO THE NATIONAL SCIENCE FOUNDATION					
PROGRAM ANNOUNCEMENT/SOLICITATION NO./DUE DATE NSF 22-1			<input type="checkbox"/> Special Exception to Deadline Date Policy		FOR NSF USE ONLY NSF PROPOSAL NUMBER
FOR CONSIDERATION BY NSF ORGANIZATION UNIT(S) (Indicate the most specific unit known, i.e. program, division, etc.) CHE - CDS&E					
DATE RECEIVED	NUMBER OF COPIES	DIVISION ASSIGNED	FUND CODE	UEI (Unique Entity Identifier)	FILE LOCATION
	1	03090000 CHE	8084	GGF7K5B4JSL5	
EMPLOYER IDENTIFICATION NUMBER (EIN) OR TAXPAYER IDENTIFICATION NUMBER (TIN) 530-20-6152		SHOW PREVIOUS AWARD NO. IF THIS IS <input type="checkbox"/> A RENEWAL <input type="checkbox"/> AN ACCOMPLISHMENT-BASED RENEWAL		IS THIS PROPOSAL BEING SUBMITTED TO ANOTHER FEDERAL AGENCY? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> IF YES, LIST ACRONYM(S)	
NAME OF ORGANIZATION TO WHICH AWARD SHOULD BE MADE NATIONAL SCIENCE FOUNDATION			ADDRESS OF AWARDEE ORGANIZATION, INCLUDING 9 DIGIT ZIP CODE 2415 EISENHOWER AVE ALEXANDRIA, VA 22314-4684 US		
AWARDEE ORGANIZATION CODE (IF KNOWN) 4102852000			ADDRESS OF PRIMARY PLACE OF PERF, INCLUDING 9 DIGIT ZIP CODE 2415 Eisenhower Avenue Alexandria, VA 22314-4684 US		
NAME OF PRIMARY PLACE OF PERF National Science Foundation					
IS AWARDEE ORGANIZATION (Check All That Apply)			<input type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> MINORITY BUSINESS <input type="checkbox"/> FOR-PROFIT ORGANIZATION <input type="checkbox"/> WOMAN-OWNED BUSINESS		<input type="checkbox"/> IF THIS IS A PRELIMINARY PROPOSAL THEN CHECK HERE
TITLE OF PROPOSED PROJECT Budget Test					SHOW LETTER OF INTENT ID IF APPLICABLE
REQUESTED AMOUNT \$ 0	PROPOSED DURATION (1-60 MONTHS) 36 months	REQUESTED STARTING DATE 10/03/2022	SHOW RELATED PRELIMINARY PROPOSAL NO. IF APPLICABLE		
THIS PROPOSAL INCLUDES ANY OF THE ITEMS LISTED BELOW <input type="checkbox"/> BEGINNING INVESTIGATOR <input type="checkbox"/> DISCLOSURE OF LOBBYING ACTIVITIES <input type="checkbox"/> PROPRIETARY & PRIVILEGED INFORMATION <input type="checkbox"/> HISTORIC PLACES <input type="checkbox"/> VERTEBRATE ANIMALS IACUC App. Date _____ PHS Animal Welfare Assurance Number _____			<input type="checkbox"/> HUMAN SUBJECTS Human Subjects Assurance Number _____ Exemption Subsection _____ or IRB App. Date _____ <input type="checkbox"/> FUNDING OF INT'L BRANCH CAMPUS OF U.S. IHE <input type="checkbox"/> FUNDING OF FOREIGN ORGANIZATION OR FOREIGN INDIVIDUAL <input type="checkbox"/> INTERNATIONAL ACTIVITIES: COUNTRY/COUNTRIES INVOLVED		
<input checked="" type="checkbox"/> TYPE OF PROPOSAL Research			<input checked="" type="checkbox"/> COLLABORATIVE STATUS A collaborative proposal from one organization (PAPPG 11.D.3.a)		
PI/PD DEPARTMENT		PI/PD POSTAL ADDRESS			
PI/PD FAX NUMBER					
NAMES (TYPED)	High Degree	Yr of Degree	Telephone Number	Email Address	

Example from Research.gov



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 or Research.gov.
- Project summaries with special characters must be uploaded as a PDF document.



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.

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

¹⁵If the proposal includes use of vertebrate animals, supplemental information is required. See Chapter II.D.4 for additional information.

¹⁶If the proposal includes use of human subjects, supplemental information is required. See Chapter II.D.5 for additional information.

Text from the PAPPG

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.



The Project Description must contain, as a separate section within the narrative, a section labeled "Broader Impacts". This section should provide a discussion of the broader impacts of 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 the achievement of societally relevant outcomes. Such outcomes include, but are not limited to: full participation of women, persons with disabilities, and underrepresented minorities 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 US; and enhanced infrastructure for research and education.

Plans for data management and sharing of the products of research, including preservation, documentation, and sharing of data, samples, physical collections, curriculum materials and other related research and education products should be described in the Special Information and Supplementary Documentation section of the proposal (see Chapter II.C.2.j for additional instructions for preparation of this section).

(ii) Page Limitations and Inclusion of Uniform Resource Locators (URLs) within the Project Description

Brevity will assist reviewers and Foundation staff in dealing effectively with proposals. Therefore, the Project Description (including Results from Prior NSF Support, which is limited to five pages) may not exceed 15 pages. Visual materials, including charts, graphs, maps, photographs and other pictorial presentations are included in the 15-page limitation. PIs are cautioned that the Project Description must be self-contained and that URLs must not be used because: 1) the information could circumvent page limitations; 2) the reviewers are under no obligation to view the sites; and 3) the sites could be altered or deleted between the time of submission and the time of review.

Conformance to the 15-page limit will be strictly enforced and may not be exceeded unless a deviation has been specifically authorized. (Chapter II.A contains information on deviations.)

(iii) Results from Prior NSF Support

The purpose of this section is to assist reviewers in assessing the quality of prior work conducted with current or prior NSF funding. If any PI or co-PI identified on the proposal has received NSF support with a start date in the past five years (including any current funding and no cost extensions), information on the award is required for each PI and co-PI, regardless of whether the support was directly related to the proposal or not. In cases where the PI or any co-PI has received more than one award (excluding amendments to existing awards), they need only report on the one award that is most closely related to the proposal. Support includes not just salary support, but any funding awarded by NSF. NSF awards such as standard or continuing grants, Graduate Research Fellowship, Major Research Instrumentation, conference, equipment, travel, and center awards, etc., are subject to this requirement.

The following information must be provided:

- (a) the NSF award number, amount and period of support;
- (b) the title of the project;

Text from the PAPPG

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.

- (e) evidence of research products and their availability, including, but not limited to: data, publications, samples, physical collections, software, and models, as described in any Data Management Plan; and
- (f) if the proposal is for renewed support, a description of the relation of the completed work to the proposed work.

If the project was recently awarded and therefore no new results exist, describe the major goals and broader impacts of the project. Note that the proposal may contain up to five pages to describe the results. Results may be summarized in fewer than five pages, which would give the balance of the 15 pages for the Project Description.

(iv) Unfunded Collaborations

Any substantial collaboration with individuals not included in the budget should be described in the Facilities, Equipment and Other Resources section of the proposal (see Chapter II.C.2.i) and documented in a letter of collaboration from each collaborator. Such letters should be provided in the supplementary documentation section of the FastLane Proposal Preparation Module and follow the format instructions specified in Chapter II.C.2.j. Collaborative activities that are identified in the budget should follow the instructions in Chapter II.D.3.

(v) Group Proposals

NSF encourages submission of proposals by groups of investigators; often these are submitted to carry out interdisciplinary projects. Unless stipulated in a specific program solicitation, however, such proposals will be subject to the 15-page Project Description limitation established in Section (ii) above. PIs who wish to exceed the established page limitations for the Project Description must request and receive a deviation in advance of proposal submission. (Chapter II.A contains information on deviations.)

(vi) Proposals for Renewed Support

See Chapter V for guidance on preparation of renewal proposals.

e. References Cited

Reference information is required. Each reference must include the names of all authors (in the same sequence in which they appear in the publication), the article and journal title, book title, volume number, page numbers, and year of publication. (See also Chapter II.C.2.d(iii)(d)) If the proposer has a website address readily available, that information should be included in the citation. It is not NSF's intent, however, to place an undue burden on proposers to search for the URL of every referenced publication. Therefore, inclusion of a website address is optional. A proposal that includes reference citation(s) that do not specify a URL is not considered to be in violation of NSF proposal preparation guidelines and the proposal will still be reviewed.

Proposers must be especially careful to follow accepted scholarly practices in providing citations for source materials relied upon when preparing any section of the proposal. While there is no established page

Text from the PAPPG



Sections of an NSF Proposal

Biographical Sketches (Required)

- Biographical sketches are required for all senior project personnel and must not exceed three pages in length, per individual.
- The Biographical Sketch is used to assess how well qualified the individual, team, or organization is to conduct the proposed activities.

f. Biographical Sketch(es)¹⁷

(i) Senior Personnel

This section of the proposal is used to assess how well qualified the individual, team, or organization is to conduct the proposed activities.

A separate biographical sketch (limited to three pages) must be provided through use of an NSF-approved format¹⁸, for each individual designated as senior personnel. (See Exhibit II-3 for the definitions of Senior Personnel.)

The following information must be provided in the order and format specified below. Inclusion of additional information beyond that 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 e-mail 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:

Undergraduate Institution(s)	Location	Major	Degree & Year
Graduate Institution(s)	Location	Major	Degree & Year
Postdoctoral Institution(s)	Location	Area	Inclusive Dates (Years)

(b) Appointments

A list, in reverse chronological order by start date of all the individual's academic, professional, or institutional appointments, beginning with the current appointment. Appointments include any titled academic, professional, or institutional position whether or not remuneration is received, and whether full-time, part-time, or voluntary (including adjunct, visiting, or honorary).

(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 distinct examples that demonstrates the broader impact of the individual's professional and scholarly activities that focus on the integration and transfer of knowledge as well as its creation. Synergistic activities should be specific and must not include multiple examples to further describe the activity. Examples may include, among others: innovations in teaching and training; contributions to the

- An NSF-approved format must be used for all senior project personnel.



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 five pages for all years of the project combined.
- Proposals containing subawards must include a separate budget justification of no more than five pages for each subaward.



SUMMARY PROPOSAL BUDGET				YEAR 1	
ORGANIZATION				FOR NSF USE ONLY	
National Science Foundation				PROPOSAL NO.	DURATION (months)
PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR				Proposed	Granted
Jeremy Leffler				AWARD NO.	
A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets)	NSF Funded Categories			Funds Requested By proposer	Funds granted by NSF (if different)
	CAL	ACAD	SUMR		
1. Jeremy Leffler - Principal Inv	2.0			16,000	
2.					
3.					
4.					
5.					
6. () OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)	0.0			0	
7. (1) TOTAL SENIOR PERSONNEL (1 - 6)	2.0			16,000	
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)					
1. (1) POST DOCTORAL SCHOLARS	12.0			10,000	
2. (0) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.0			0	
3. (0) GRADUATE STUDENTS				0	
4. (5) UNDERGRADUATE STUDENTS				10,000	
5. (0) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)				0	
6. (0) OTHER				0	
TOTAL SALARIES AND WAGES (A + B)				36,000	
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)					
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)				36,000	
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING \$5,000.)					
			\$ 0.0		
TOTAL EQUIPMENT				0	
E. TRAVEL					
1. DOMESTIC (INCL. U.S. POSSESSIONS)				0	
2. INTERNATIONAL				0	
F. PARTICIPANT SUPPORT COSTS					
1. STIPENDS \$	5,000				
2. TRAVEL	3,000				
3. SUBSISTENCE	1,000				
4. OTHER	500				
TOTAL NUMBER OF PARTICIPANTS (10)				9,500	
G. OTHER DIRECT COSTS					
1. MATERIALS AND SUPPLIES				1,500	
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION				20,000	
3. CONSULTANT SERVICES				10,000	
4. COMPUTER SERVICES				60,000	
5. SUBAWARDS				0	
6. OTHER				0	
TOTAL OTHER DIRECT COSTS				91,500	
H. TOTAL DIRECT COSTS (A THROUGH G)					
				137,000	
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)					
TOTAL INDIRECT COSTS (F&A)				0	
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)					
				137,000	
K. FEE					
				0	

Example from Research.gov

Budgetary Guidelines

Information regarding budgetary guidelines can be found in PAPPG 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 and will not be visible in Research.gov.
- Organizations may, at their own discretion, continue to contribute any amount of voluntary uncommitted cost sharing to NSF-sponsored projects.





Sections of an NSF Proposal

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

[Give Feedback >](#)

Content Instructions for Facilities, Equipment and Other Resources:

- The document must conform to solicitation-specific and PAPPG instructions
- Please refer to the [Format of the proposal \(PAPPG\)](#) for all margin, spacing, font type and size requirements
- This section should be narrative in nature and include internal and external resources (both physical and personnel)
- This section should include any senior personnel or postdoctoral researchers for whom no funds are being requested in the budget
- The section must not include any quantifiable financial information

[Facilities, Equipment and Other Resources \(PAPPG\)](#)





Sections of an NSF Proposal

Current and Pending Support (Required)

- This section of the proposal calls for information on all current and pending support for ongoing projects and proposals.
- NSF uses the information to assess the capacity of the individual to carry out the research as proposed as well as to help assess any potential overlap/duplication.
- Current and Pending Support must be provided through use of an NSF-approved format.

h. Current and Pending Support³²

(i) This section of the proposal is used to assess the capacity of the individual to carry out the research as proposed, as well as to help assess any potential overlap/duplication with the project being proposed.

(ii) Current and pending support information must be separately provided through use of an NSF-approved format³³, for each individual designated as senior personnel on the proposal. Current and pending support includes all resources made available to an individual in support of and/or related to all of his/her research efforts, regardless of whether or not they have monetary value, except as noted in paragraph (v) below. Current and pending support also includes in-kind contributions (such as

³² A table entitled, *NSF Pre-award and Post-award Disclosures Relating to the Biographical Sketch and Current and Pending Support*, has been developed to assist users in completion of these sections of the proposal.

³³ A set of Frequently Asked Questions regarding the NSF-approved formats has been developed to assist users in completion of this section of the proposal.



Pre-award and Post-award Disclosures

NSF Pre-award and Post-award Disclosures^{1/2/3} Relating to the Biographical Sketch and Current and Pending Support April 20, 2022

Table Key

• = for new support only

◆ = If undisclosed at the time of proposal submission

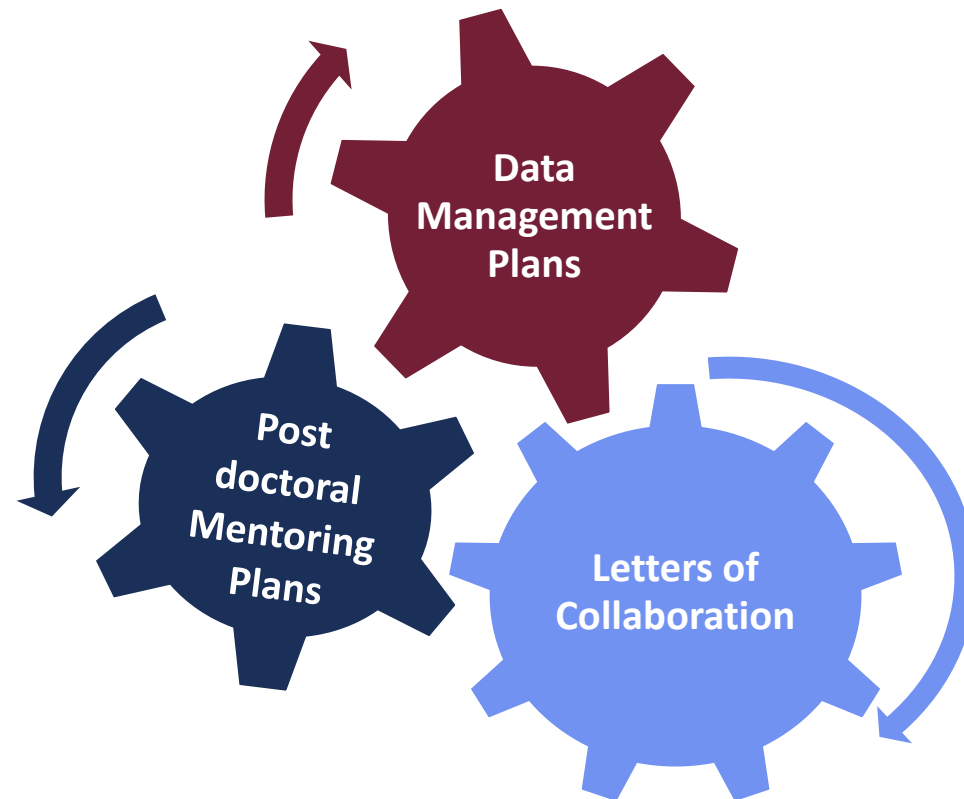
Type of Activity	Biographical Sketch	Current & Pending Support	Facilities, Equipment & Other Resources	Project Reports	Post-Award Information Term & Condition	Disclosure Not Required
Undergraduate, graduate, and postdoctoral training, including location, major/area and degree and year	✓					
Academic, professional ⁴ or institutional appointments, whether or not remuneration is received, and, whether full-time, part-time, or voluntary	✓					
All projects (including this project) currently under consideration from whatever source, and all ongoing projects, irrespective of whether support is provided through the proposing organization, another organization or <i>directly</i> to the individual		✓		✓*	✓◆	
In-kind contributions that support the research activity for use on the project/proposal being proposed			✓			



Sections of an NSF Proposal

Special Information and Supplementary Documentation

This section is used for the required data management plan, postdoctoral mentoring plan and other pertinent supplementary information, such as letters of collaboration; more information can be found in the PAPPG, Chapter II.C.2.j.





Letter of Collaboration

Letter should consist of a single-sentence statement of collaboration:

- “If the proposal submitted by Dr. [name of the PI] entitled [proposal title] is selected for funding by the NSF, it is my intent to collaborate and/or commit resources as detailed in the Project Description or the Facilities, Equipment and Other Resources section of the proposal.”
- Must NOT recommend or endorse PI or project

All relevant collaborative activities should be described in the Project Description, or in the Facilities, Equipment and Other Resources pages, such as:

- Intellectual contributions to the project
- Permission to access a site, use instrumentation or facility
- Offer to furnish samples / materials for research

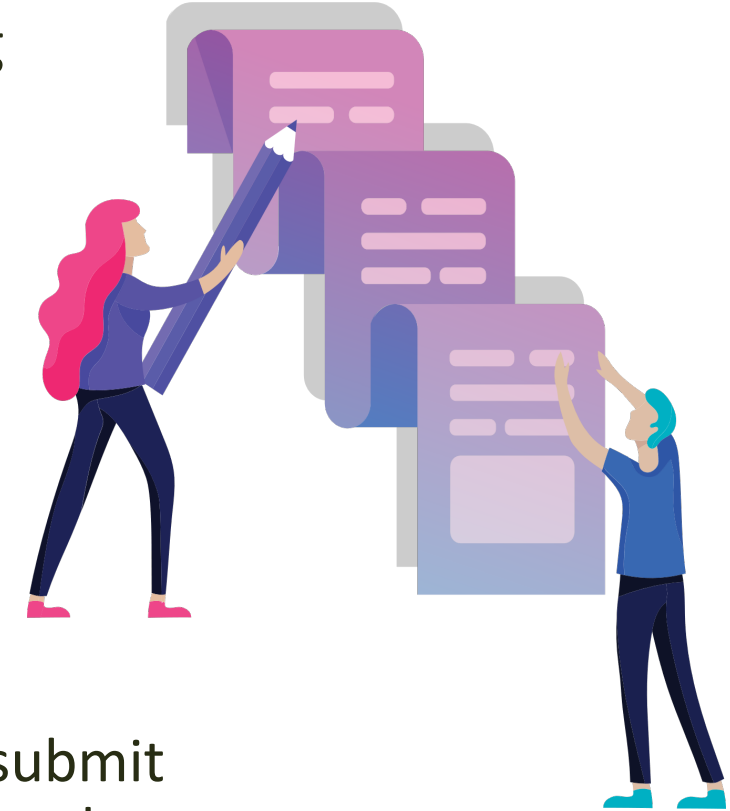
Logistical support / evaluation services

Mentoring of U.S. students at a foreign site, if applicable



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.
- 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 (cont'd)

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

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



The screenshot shows the NSF website page for Data Management Plan Requirements. The page features a navigation menu with links for Home, Research Areas, Funding, Awards, Document Library, News, and About NSF. The main content area is titled "Dissemination and Sharing of Research Results" and contains sections for NSF DATA SHARING POLICY, NSF DATA MANAGEMENT PLAN REQUIREMENTS, and REQUIREMENTS BY DIRECTORATE, OFFICE, DIVISION, PROGRAM, OR OTHER NSF UNIT. The left sidebar includes links to the Office of Budget Finance & Award Management (BFA) and various divisions and committees.

Office of Budget Finance & Award Management (BFA)

- Office of Budget, Finance, & Award Management
- Budget Division
- Division of Acquisition and Cooperative Support
- Division of Financial Management
- Division of Grants & Agreements
- Division of Institution & Award Support
- Large Facilities Office
- Advisory Committees
 - Business and Operations Advisory Committee
- External Links
 - Chief Financial Officer Council
- Contact BFA
- View BFA Staff
- Search BFA Staff
- Follow us BFA

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, samples, physical collections and other supporting materials created or gathered in the course of work under NSF grants. Grantees are expected to encourage and facilitate such sharing. See Award & Administration Guide (AAG) Chapter VI.D.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.O.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, Divisions, 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, Chapter II.O.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 Sciences & Engineering (CISE)
 - Directorate-wide Guidance
- Education & Human Resources Directorate (EHR)
 - Directorate-wide Guidance
- Engineering Directorate (ENG)
 - Directorate-wide Guidance
- Geosciences Directorate (GEO)



For More Information

“Ask Early, Ask Often!”

- [nsf.gov/staff](https://www.nsf.gov/staff)
- [nsf.gov/staff/orglist.jsp](https://www.nsf.gov/staff/orglist.jsp)
- [nsf.gov/about/career_opps/rotators/index.jsp](https://www.nsf.gov/about/career_opps/rotators/index.jsp)

