

NSF Regional Grants Conference

Proposal Preparation

October 5-6, 2009

Hosted by: Jackson State University, Jackson, MS

Panelists

Dragana Brzakovic

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

Jolene Jesse

Program Director, Directorate for Education & Human Resources,
Division of Human Resource Development

Bruce Kramer

Division Director (Acting), Directorate for Engineering, Division of Civil, Mechanical &
Manufacturing Innovation

Anne-Marie Schmoltnner

Section Head, Lower Atmospheric Research, Directorate for Geosciences, Division of
Atmospheric Sciences

Topics Covered

- Find Funding Opportunities
- Proposal and Award Policies and Procedures Guide
- Sections of an NSF Proposal
- Proposal Development Strategies
- Budgetary Guidelines
- Support for Proposal Writing
- Grants for Rapid Response (RAPID) & EARly-concept Grants for Exploratory Research (EAGER)
- Conclusion

Find Funding Opportunities

NSF provides numerous ways to locate funding from its website.

www.nsf.gov

NSF Home Page



Navigate from NSF's home page to find funding opportunities.

Funding Opportunities

- ➔ **Find Funding Opportunities**
- ➔ **Upcoming Due Dates**
- ➔ **How to Prepare Your Proposal**
- ➔ **Funding Trends**

Program Areas

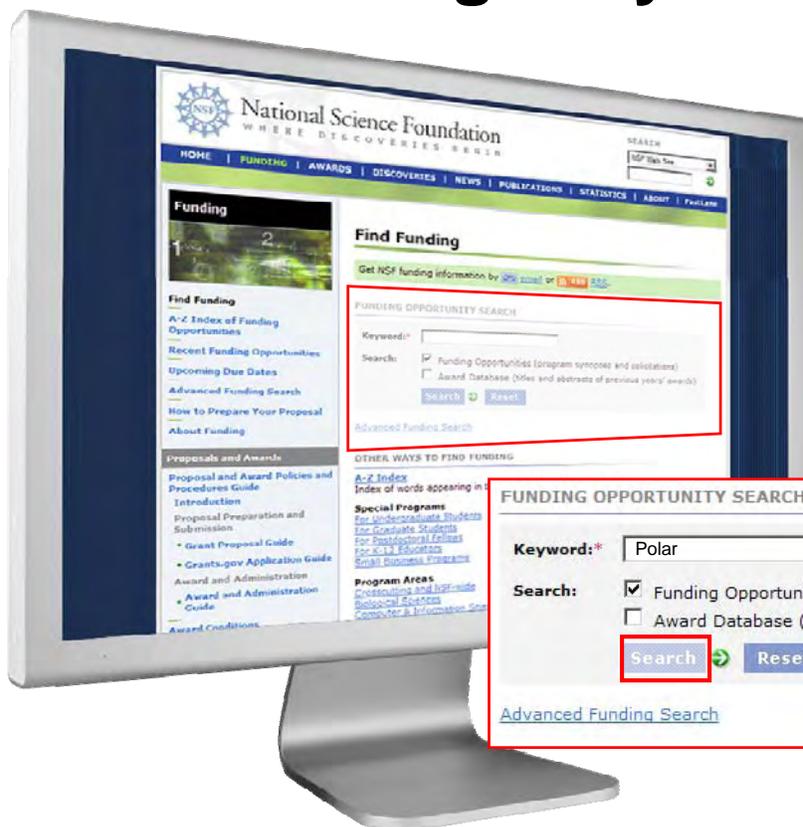
Select One

Quick Links

Select One

Search Funding Opportunities

Find Funding: Keyword Search



Use the Keyword Search function to find specific opportunities of interest.

FUNDING OPPORTUNITY SEARCH

Keyword:

Search: Funding Opportunities (program synopses and solicitations)
 Award Database (titles and abstracts of previous years' awards)

[Advanced Funding Search](#)

Find Funding: Keyword Search Results

Funding Search Results

Searched: Funding Opportunities Award Database

Searched for **polar**

[Search again](#)

75 matching programs found
Showing records 1 to 20

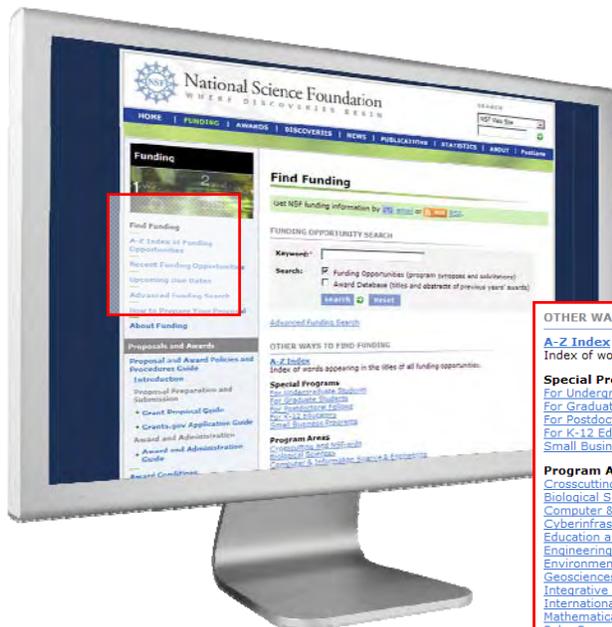
1 2 3 4 [Next](#)

Sort by relevance / [Sort by program title](#)

Program Title
ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers (09-504) Match found in: Funding Opportunities database IT-Catalyst projects are encouraged to incorporate an Internal Steering Committee or Internal Advisory Committee to help manage the project implementation, resolve project issues, and ensure that the project is on track for meeting project goals. PAID projects may incorporate an Internal Steering Committee or Internal Advisory Committee to help manage the project implementation, resolve project issues, and ensure that the project is on track for meeting project ...
Antarctic Aeronomy and Astrophysics (05-5115) Match found in: Funding Opportunities database ... in the context of the ozone hole. The polar stratosphere is expected to be a field of continued ... 00 14000000 OPP Office of Polar Programs Office of Polar Programs (OPP) 14030000 ANT Division of ...
Antarctic Artists and Writers Program (08-552) Match found in: Funding Opportunities database ... p>International Polar Year The International Polar Year (IPY), which extends ... artists and writers, the Foundation provides polar clothing on loan, round-trip economy air travel ...
Antarctic Earth Sciences Program (05-5112)

Scroll through search results to find the ones that best suit your needs.

Other Ways to Find Funding



- Find Funding**
- [A-Z Index of Funding Opportunities](#)
- [Recent Funding Opportunities](#)
- [Upcoming Due Dates](#)
- [Advanced Funding Search](#)
- [How to Prepare Your Proposal](#)
- [About Funding](#)

Consult the alphabetical listing of funding opportunities.

OTHER WAYS TO FIND FUNDING

[A-Z Index](#)
Index of words appearing in the titles of all funding opportunities.

Special Programs
[For Undergraduate Students](#)
[For Graduate Students](#)
[For Postdoctoral Fellows](#)
[For K-12 Educators](#)
[Small Business Programs](#)

Program Areas
[Crosscutting and NSF-wide](#)
[Biological Sciences](#)
[Computer & Information Science & Engineering](#)
[Cyberinfrastructure](#)
[Education and Human Resources](#)
[Engineering](#)
[Environmental Research & Education](#)
[Geosciences](#)
[Integrative Activities](#)
[International Science & Engineering](#)
[Mathematical & Physical Sciences](#)
[Polar Programs](#)
[Social, Behavioral & Economic Sciences](#)

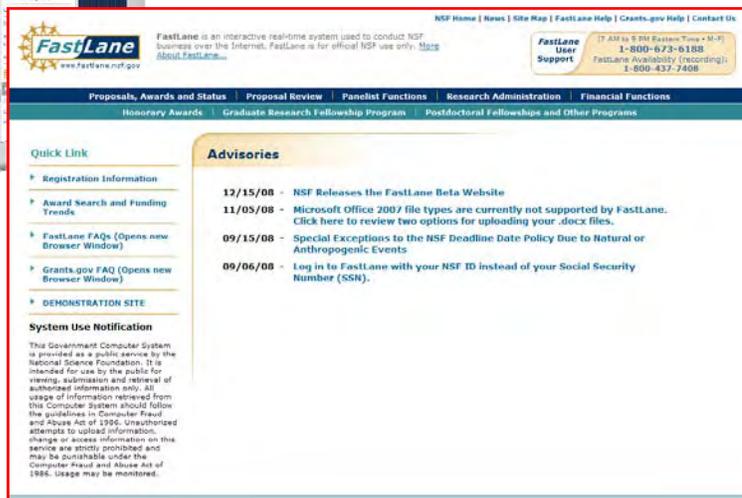
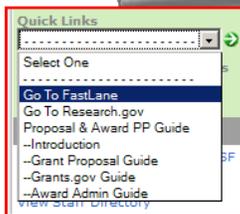
[Recently Announced Funding Opportunities](#)
All funding opportunities ordered by the date they were published on the NSF web site.

[Upcoming Due Dates](#)
All funding opportunities ordered by their next due dates.

[Solicitations that Limit the Number of Proposals an Organization Can Submit](#)
Solicitations that have limits on the number of proposals that may be submitted by one organization.

Other Ways to Find Funding

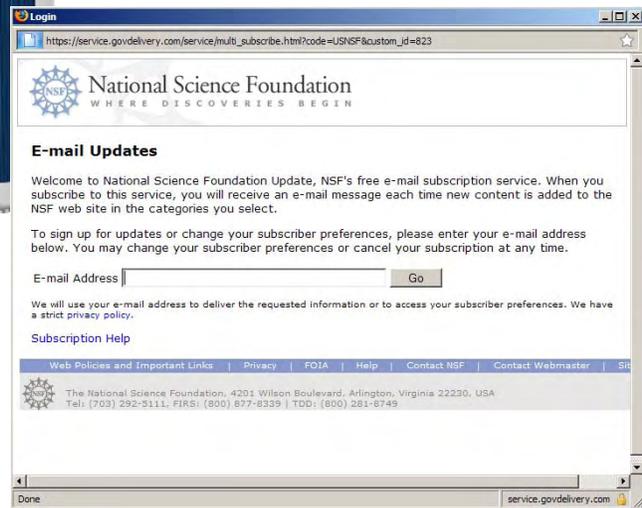
Also find funding opportunities on FastLane.



Other Ways to Find Funding: NSF Update

- **NSF's free e-mail subscription service**
- **Offers subscription options for many content categories, such as images, videos, and events**
- **Includes information concerning upcoming due dates for funding opportunities**

To sign up, go to the NSF Home Page



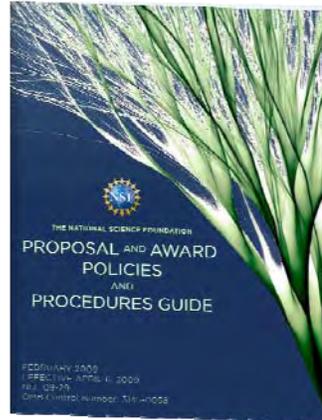
Other Ways to Find Funding



Use Grants.gov's search feature

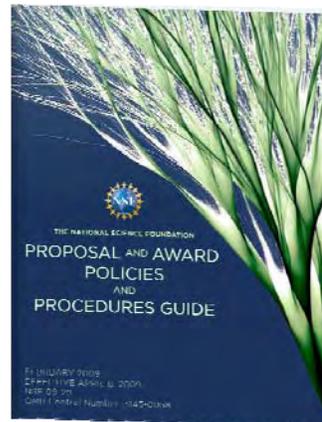
What is the Proposal & Award Policies & Procedures Guide?

The Proposal and Award Policies and 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:



What is the Proposal & Award Policies & Procedures Guide?

- Part I is NSF's proposal preparation and submission guidelines -- the NSF Grant Proposal Guide (GPG) and the NSF Grants.gov Application.
- Part II contains the documents used to guide, manage, and monitor the award and administration of grants and cooperative agreements made by NSF.



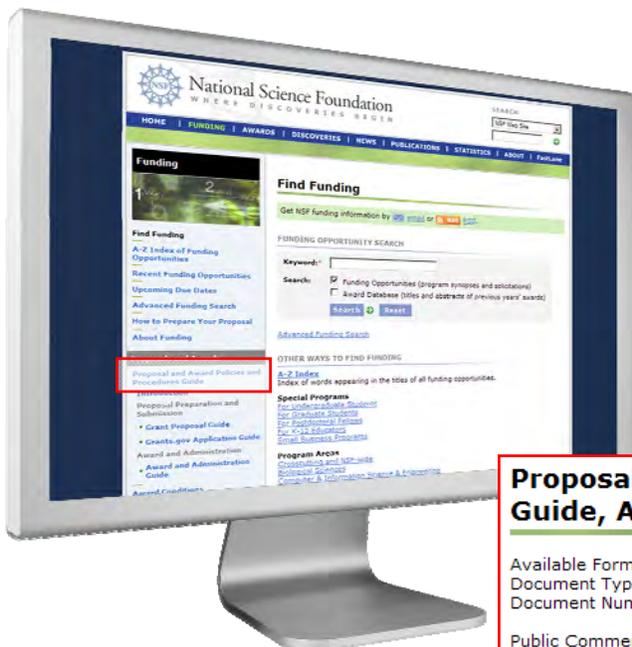
Grant Proposal Guide

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



To Find the PAPPG and Related Documents

Find a link to the PAPPG on NSF's website.



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

Proposal and Award Policies and Procedures Guide, April 2009

Available Formats: [HTML](#) | [PDF](#)
Document Type: Policies and Procedures
Document Number: nsf0929

Public Comment: Effective for proposals submitted on or after April 6, 2009. In the interim, the guidelines contained in [NSF 09-1](#) continue to apply. Proposers responding to a funding opportunity with a due date on or after April 6th must comply with the guidelines in [NSF 09-29](#).

Document History: Posted: February 17, 2009.

Types of Funding Opportunities

Program Descriptions

Proposals for a **Program Description** must follow the instructions in the GPG.

Program Announcements

Proposals for a **Program Announcement** must follow the instructions in the GPG.

Program Solicitations

Proposals must follow the instructions in the **Program Solicitation**; the instructions in the GPG 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

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

Sample Cover Page of a Solicitation

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

Program Solicitation
NSF 08-557

Replaces Document(s):
NSF 05-579



National Science Foundation
Directorate for Biological Sciences
Directorate for Computer & Information Science & Engineering
Directorate for Education & Human Resources
Directorate for Engineering
Directorate for Geosciences
Directorate for Mathematical & Physical Sciences
Directorate for Social, Behavioral & Economic Sciences
Office of Polar Programs

**Program
Solicitation
Number**

**Disciplines
providing
funding for this
opportunity**

Sample Cover Page of a Solicitation

Number of awards funded by the program per year

Eligibility information for institutions/PIs submitting proposals

Award Information

Anticipated Type of Award: Standard Grant or Continuing Grant

Estimated Number of Awards: 425 per year

Anticipated Funding Amount: \$80,000,000 per year for new awards. This amount is approximate and subject to availability of funds. Funding for CAREER awards is contained within program allocations.

Eligibility Information

Organization Limit:

Proposals may only be submitted by the following:

- Academic institutions in the U.S., its territories or possessions, and the Commonwealth of Puerto Rico that award degrees in fields supported by NSF.
- Non-profit, non-degree-granting organizations such as museums, observatories or research labs may also be eligible to submit proposals, if the eligibility requirements of the PI's position are satisfied.

PI Limit:

Special eligibility criteria apply.

Limit on Number of Proposals per Organization:

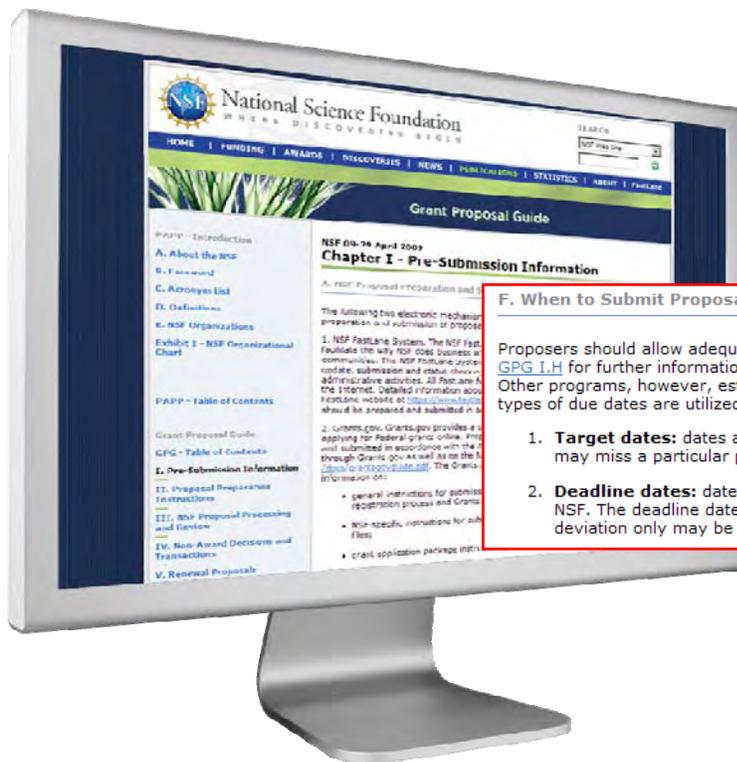
There is no limit on the number of proposals that an organization may submit.

Limit on Number of Proposals per PI:

Each Principal Investigator may only submit 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 or are returned without review) do not count toward the three-competition limit.

Amount of money this program funds per year

Types of Proposal Submissions



No Deadlines –
Proposals may be
submitted at any time

F. When to Submit Proposals

Proposers should allow adequate **time for NSF review and processing of proposals** (see [GPG 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 for review by NSF. The deadline date will be waived only in extenuating circumstances. Such a deviation only may be authorized in accordance with [GPG Chapter II.A](#).

Types of Proposal Submissions



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

F. When to Submit Proposals

Proposers should allow adequate time for NSF review and processing of proposals (see [GPG 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 for review by NSF. The deadline date will be waived only in extenuating circumstances. Such a deviation only may be authorized in accordance with [GPG Chapter II.A.](#)

Types of Proposal Submissions



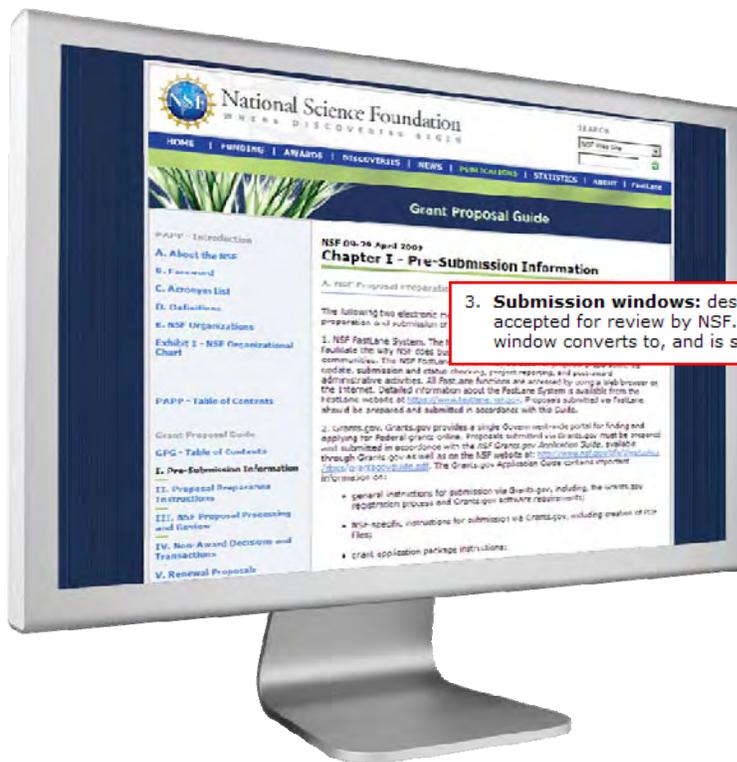
Deadline Dates –
Proposals will not be accepted after this date and time (5 pm submitter's local time)

F. When to Submit Proposals

Proposers should allow adequate time for NSF review and processing of proposals (see [GPG 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 for review by NSF. The deadline date will be waived only in extenuating circumstances. Such a deviation only may be authorized in accordance with [GPG Chapter II.A](#).

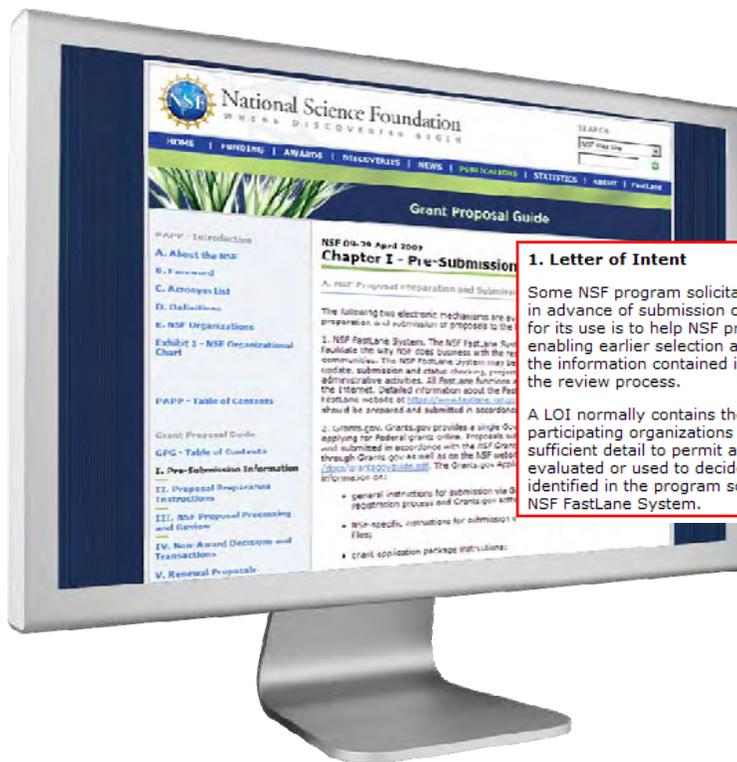
Types of Proposal Submissions



Submission Windows –
Closing date converts to a
deadline date

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



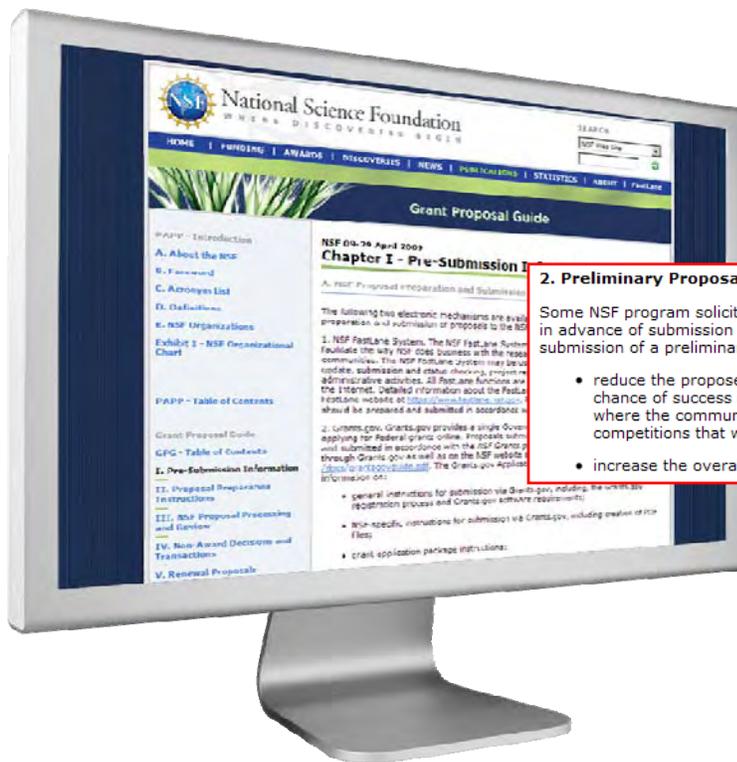
Letters of Intent –
Enables better management
of reviewers and panelists

1. Letter of Intent

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

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

Types of Proposal Submissions



Preliminary Proposals –
Sometimes required,
sometimes optional

2. Preliminary Proposal

Some NSF program solicitations require or request submission of a preliminary proposal in advance of submission of a full proposal. The two 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 where the community senses that a major new direction is being identified, or competitions that will result in a small number of actual awards; and
- increase the overall quality of the full submission.

Sections of an NSF Proposal

Cover Sheet

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

Example from FastLane

COVER SHEET FOR PROPOSAL TO THE NATIONAL SCIENCE FOUNDATION					
PROGRAM ANNOUNCEMENT/SOLICITATION NO./CLOSING DATE (if not a response to a program announcement/solicitation enter NSF 05-1)					FOR NSF USE ONLY
NSF 98-164					NSF PROPOSAL NUMBER
FOR CONSIDERATION BY NSF ORGANIZATION UNIT(S) (indicate the most specific unit known, i.e. program, division, etc.)					0840812
CNS - NETWORKING RESEARCH					
DATE RECEIVED	NUMBER OF COPIES	DIVISION ASSIGNED	FUND CODE	DUNSI# (Data Universal Numbering System)	FILE LOCATION
08/03/2008	17	05050000 NCR	4097	0748118054568	05102981.H022aw
EMPLOYER IDENTIFICATION NUMBER (EIN) OR TAXPAYER IDENTIFICATION NUMBER (TIN)		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			ADDRESS OF AWARDING ORGANIZATION, INCLUDING 9 DIGIT ZIP CODE		
NSF			Arlington, VA 222302000		
AWARDEE ORGANIZATION CODE (IF KNOWN)			US		
4102852000					
NAME OF PERFORMING ORGANIZATION, IF DIFFERENT FROM ABOVE			ADDRESS OF PERFORMING ORGANIZATION, IF DIFFERENT, INCLUDING 9 DIGIT ZIP CODE		
PERFORMING ORGANIZATION CODE (IF KNOWN)					
IS AWARDEE ORGANIZATION (Check All That Apply) <input type="checkbox"/> SMALL BUSINESS <input type="checkbox"/> MINORITY BUSINESS <input type="checkbox"/> IF THIS IS A PRELIMINARY PROPOSAL (See GPG 8.C.2 For Definitions) <input type="checkbox"/> FOR-PROFIT ORGANIZATION <input type="checkbox"/> WOMAN-OWNED BUSINESS THEN CHECK HERE					
TITLE OF PROPOSED PROJECT Neural Network Research					
REQUESTED AMOUNT	PROPOSED DURATION (1-60 MONTHS)	REQUESTED STARTING DATE	SHOW RELATED PRELIMINARY PROPOSAL NO. IF APPLICABLE		
\$ 400,000	0 months				
CHECK APPROPRIATE BOXES IF THIS PROPOSAL INCLUDES ANY OF THE ITEMS LISTED BELOW					
<input type="checkbox"/> BEGINNING INVESTIGATOR (GPG 10.2)		<input type="checkbox"/> HUMAN SUBJECTS (GPG 8.D.5) Human Subjects Assurance Number _____			
<input type="checkbox"/> DISCLOSURE OF LOBBYING ACTIVITIES (GPG 8.C)		Exemption Subsection _____ or 989 App. Date _____			
<input type="checkbox"/> PROPRIETARY & PRIVILEGED INFORMATION (GPG 1.D. 8.C.1-d)		<input type="checkbox"/> INTERNATIONAL COOPERATIVE ACTIVITIES: COUNTRY/COUNTRIES INVOLVED (GPG 8.C.2)			
<input type="checkbox"/> HISTORIC PLACES (GPG 8.C.2.3)					
<input type="checkbox"/> SMALL GRANT FOR EXPLOR. RESEARCH (SGER) (GPG 8.D.1)		<input type="checkbox"/> HIGH RESOLUTION GRAPHICS/OTHER GRAPHICS WHERE EXACT COLOR REPRESENTATION IS REQUIRED FOR PROPER INTERPRETATION (GPG 10.1)			
<input type="checkbox"/> VERTEBRATE ANIMALS (GPG 8.D.5) IACUC App. Date _____					
PHS Animal Welfare Assurance Number _____					
PI/PO DEPARTMENT Division of Information Systems			PI/POPostal ADDRESS 4201 Wilson Boulevard		
PI/PO FAX NUMBER 703-292-3000			Arlington, VA 222301000		
			United States		
NAMES (TYPED)	High Degree	Yr of Degree	Telephone Number	Electronic Mail Address	
PI/PO NAME Terry Demo	PhD	2005	703-292-1000	td@nsf.gov	
CO-PI/PO					
Electronic Signature					

Sections of an NSF Proposal

Project Summary

The proposal must contain a summary of the proposed activity suitable for publication, not more than one page in length.

Proposals that do not separately address both merit review criteria will be returned without review.

Text from the GPG

- Human Subjects¹⁹ (See GPG II.D.7)
- High Resolution Graphics/Other Graphics Where Exact Color Representation is Required for Proper Interpretation (See GPG I.G.1)
- International Cooperative Activities Country Name(s) (See GPG II.C.2)

b. Project Summary

The proposal must contain a summary of the proposed activity suitable for publication, not more than one page in length. It should not be an abstract of the proposal, but rather a self-contained description of the activity that would result if the proposal were funded. The summary should be written in the third person and include a statement of objectives and methods to be employed. It must clearly address in separate statements (within the one-page summary):

- the intellectual merit of the proposed activity; and
- the broader impacts resulting from the proposed activity.

It should be informative to other persons working in the same or related fields and, insofar as possible, understandable to a scientifically or technically literate lay reader. **Proposals that do not separately address both merit review criteria within the one-page Project Summary will be returned without review.**

c. Table of Contents

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

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

(i) Content

All proposals to NSF will be reviewed utilizing the two merit review criteria described in greater length in GPG Chapter III.

The Project Description should provide a clear statement of the work to be undertaken and must include: objectives for the period of the proposed work and expected significance; relation to longer-term goals of the PI's project; and relation to the present state of knowledge in the field, to work in progress by the PI under other support and to work in progress elsewhere.

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 and plans for preservation, documentation, and sharing of data, samples, physical collections, curriculum materials and other related research and education products. It must describe as an integral part of the narrative, the broader impacts resulting from the proposed activities, addressing one or more of the following as appropriate for the project: how the project will integrate research and education by advancing discovery and understanding while at the same time promoting teaching, training, and learning; ways in which the proposed activity will broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.); how the project will enhance the infrastructure for research and/or education, such as facilities, instrumentation, networks, and partnerships; how the results of the project will be disseminated broadly to enhance scientific and technological understanding; and potential benefits of the proposed activity to society at large. Examples illustrating activities likely to demonstrate broader impacts are available electronically on the NSF website.

Each proposal that requests funding to support postdoctoral researchers must include, as a separate section within the 15-page Project Description, a description of the mentoring activities that will be provided for such individuals. Examples of mentoring activities include, but are not limited to: career counseling; training in

¹⁹ If the proposal includes use of Human Subjects, supplemental information is required. See GPG Chapter II.D.7 for additional information.

Grant Proposal Guide II-7 NSF 09-29

Sections of an NSF Proposal

Table of Contents

FastLane automatically generates a Table of Contents.

Example from FastLane

TABLE OF CONTENTS		
<small>For font size and page formatting specifications, see GPG section II.C.</small>		
	Total No. of Pages	Page No.* (Optional)
Cover Sheet for Proposal to the National Science Foundation		
Project Summary (not to exceed 1 page)	0	
Table of Contents	1	
Project Description (Including Results from Prior NSF Support) (not to exceed 15 pages) (Exceed only if allowed by a specific program announcement/solicitation or if approved in advance by the appropriate NSF Assistant Director or designee)	1	
References Cited	0	
Biographical Sketches (Not to exceed 2 pages each)	1	
Budget (Plus up to 3 pages of budget justification)	3	
Current and Pending Support	0	
Facilities, Equipment and Other Resources	1	
Special Information/Supplementary Documentation	0	
Appendix (List below) (Include only if allowed by a specific program announcement/ solicitation or if approved in advance by the appropriate NSF Assistant Director or designee)		
Appendix Items:		

*Proposers may select any numbering mechanism for the proposal. The entire proposal however, must be paginated. Complete both columns only if the proposal is numbered consecutively.

Sections of an NSF Proposal

Project Description

The two merit review criteria should be addressed with the project description, which may not exceed 15 pages.

Text from the GPG

- Human Subjects¹⁹ (See GPG II.D.7)
- High Resolution Graphics/Other Graphics Where Exact Color Representation is Required for Proper Interpretation (See GPG I.G.1)
- International Cooperative Activities Country Name(s) (See GPG II.C.2)

b. Project Summary

The proposal must contain a summary of the proposed activity suitable for publication, not more than one page in length. It should not be an abstract of the proposal, but rather a self-contained description of the activity that would result if the proposal were funded. The summary should be written in the third person and include a statement of objectives and methods to be employed. It must clearly address in separate statements (within the one-page summary):

- the intellectual merit of the proposed activity, and
- the broader impacts resulting from the proposed activity.

It should be informative to other persons working in the same or related fields and, insofar as possible, understandable to a scientifically or technically literate lay reader. **Proposals that do not separately address both merit review criteria within the one-page Project Summary will be returned without review.**

c. Table of Contents

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

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

(i) Content

All proposals to NSF will be reviewed utilizing the two merit review criteria described in greater length in GPG Chapter III.

The Project Description should provide a clear statement of the work to be undertaken and must include: objectives for the period of the proposed work and expected significance; relation to longer-term goals of the PI's project, and relation to the present state of knowledge in the field, to work in progress by the PI under other support and to work in progress elsewhere.

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 and plans for preservation, documentation, and sharing of data, samples, physical collections, curriculum materials and other related research and education products. It must describe as an integral part of the narrative, the broader impacts resulting from the proposed activities, addressing one or more of the following as appropriate for the project: how the project will integrate research and education by advancing discovery and understanding while at the same time promoting teaching, training, and learning; ways in which the proposed activity will broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.); how the project will enhance the infrastructure for research and/or education, such as facilities, instrumentation, networks, and partnerships; how the results of the project will be disseminated broadly to enhance scientific and technological understanding; and potential benefits of the proposed activity to society at large. Examples illustrating activities likely to demonstrate broader impacts are available electronically on the NSF website.

Each proposal that requests funding to support postdoctoral researchers must include, as a separate section within the 15-page Project Description, a description of the mentoring activities that will be provided for such individuals. Examples of mentoring activities include, but are not limited to: career counseling; training in

¹⁹ If the proposal includes use of Human Subjects, supplemental information is required. See GPG Chapter II.D.7 for additional information.

Sections of an NSF Proposal

References Cited

Reference information is required, and proposers must follow accepted scholarly practices in providing citations for source materials.

Text from the GPG

the established page limitations for the Project Description must request and receive a deviation in advance of proposal submission. (GPG Chapter II A contains information on deviations.)

(vi) Proposals for Renewed Support

A proposal for renewed support may be either a "traditional" proposal in which the proposed work is documented and described as fully as though the proposer were applying for the first time; or, an "Accomplishment-Based Renewal" (ABR) proposal, in which the Project Description is replaced by copies of no more than six reprints of publications resulting from the research supported by NSF during the preceding three to five year period, plus a brief summary of plans for the proposed support period. (See GPG Chapter V for additional information 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. If the document is available electronically, the website address also should be identified.²⁰ 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 limitation for the references, this section must include bibliographic citations only and must not be used to provide parenthetical information outside of the 15-page Project Description.

f. Biographical Sketch(es)

(i) Senior Personnel

A biographical sketch (limited to two pages) is required for each individual identified as senior project personnel. (See GPG Exhibit II-7 for the definitions of Senior Personnel.) The following information must be provided in the order and format specified below.

Do not submit personal information such as **home** address, **home** telephone, fax, or cell phone numbers; **home** e-mail address; date of birth; citizenship; drivers' license numbers; marital status; personal hobbies; and the like. Such personal information is irrelevant to the merits of the proposal. If such information is included, NSF will make every effort to prevent unauthorized access to such material, but the Foundation is not responsible or in any way liable for the release of such material. (See also GPG Chapter III G.)

(a) Professional Preparation

A list of the individual's undergraduate and graduate education and postdoctoral training as indicated below:

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

(b) Appointments

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

(c) Publications

A list of: (i) up to 5 publications most closely related to the proposed project; and (ii) up to 5 other significant publications, whether or not related to the proposed project. Each publication identified must include the names

²⁰If the proposer has a website address readily available, that information should be included in the citation, as stated above. 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 address is not considered to be in violation of NSF proposal preparation guidelines and the proposal will still be reviewed.

Sections of an NSF Proposal

Biographical Sketches

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

Text from the GPG

the established page limitations for the Project Description must request and receive a deviation in advance of proposal submission. (GPG Chapter II A contains information on deviations.)

(vi) Proposals for Renewed Support

A proposal for renewed support may be either a "traditional" proposal in which the proposed work is documented and described as fully as though the proposer were applying for the first time; or, an "Accomplishment-Based Renewal" (ABR) proposal, in which the Project Description is replaced by copies of no more than six reprints of publications resulting from the research supported by NSF during the preceding three to five year period, plus a brief summary of plans for the proposed support period. (See GPG Chapter V for additional information 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. If the document is available electronically, the website address also should be identified.²⁰ 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 limitation for the references, this section must include bibliographic citations only and must not be used to provide parenthetical information outside of the 15-page Project Description.

f. Biographical Sketch(es)

(i) Senior Personnel

A biographical sketch (limited to two pages) is required for each individual identified as senior project personnel. (See GPG Exhibit II-7 for the definitions of Senior Personnel.) The following information must be provided in the order and format specified below.

Do not submit personal information such as **home** address, **home** telephone, fax, or cell phone numbers; **home** e-mail address; date of birth; citizenship; drivers' license numbers; marital status; personal hobbies; and the like. Such personal information is irrelevant to the merits of the proposal. If such information is included, NSF will make every effort to prevent unauthorized access to such material, but the Foundation is not responsible or in any way liable for the release of such material. (See also GPG Chapter III G.)

(a) Professional Preparation

A list of the individual's undergraduate and graduate education and postdoctoral training as indicated below.

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

(b) Appointments

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

(c) Publications

A list of: (i) up to 5 publications most closely related to the proposed project; and (ii) up to 5 other significant publications, whether or not related to the proposed project. Each publication identified must include the names

²⁰If the proposer has a website address readily available, that information should be included in the citation, as stated above. 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 address is not considered to be in violation of NSF proposal preparation guidelines and the proposal will still be reviewed.

Sections of an NSF Proposal

Budget

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

Example from FastLane

SUMMARY PROPOSAL BUDGET		YEAR 1		FOR NSF USE ONLY	
ORGANIZATION		PROPOSAL NO.	DURATION (months)		
NSF			Proposed	Granted	
PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR		AWARD NO.			
Terry Demo					
A. SENIOR PERSONNEL: PIPD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets)		NSF Funds (Indirect Costs)		Funds Requested by proposer	Funds granted by NSF (if different)
		CAL	ACAD	SUMR	
1.	Terry Demo - none	0.00	0.00	0.00	\$ 400,000
2.					
3.					
4.					
5.					
6.	(B) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)	0.00	0.00	0.00	0
7.	(I) TOTAL SENIOR PERSONNEL (1 - 6)	0.00	0.00	0.00	400,000
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)					
1.	(B) POST DOCTORAL SCHOLARS	0.00	0.00	0.00	0
2.	(B) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.00	0.00	0.00	0
3.	(B) GRADUATE STUDENTS				0
4.	(B) UNDERGRADUATE STUDENTS				0
5.	(B) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)				0
6.	(B) OTHER				0
TOTAL SALARIES AND WAGES (A + B)				400,000	
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)				0	
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)				400,000	
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING \$5,000.)					
TOTAL EQUIPMENT				0	
E. TRAVEL					
1. DOMESTIC (INCL. CANADA, MEXICO AND U.S. POSSESSIONS)				0	
2. FOREIGN				0	
TOTAL TRAVEL				0	
F. PARTICIPANT SUPPORT COSTS					
1. STIPENDS \$ _____				0	
2. TRAVEL _____				0	
3. SUBSISTENCE _____				0	
4. OTHER _____				0	
TOTAL NUMBER OF PARTICIPANTS (F)				0	
TOTAL PARTICIPANT COSTS				0	
G. OTHER DIRECT COSTS					
1. MATERIALS AND SUPPLIES				0	
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION				0	
3. CONSULTANT SERVICES				0	
4. COMPUTER SERVICES				0	
5. SUBAWARDS				0	
6. OTHER				0	
TOTAL OTHER DIRECT COSTS				0	
H. TOTAL DIRECT COSTS (A THROUGH G)				400,000	
I. INDIRECT COSTS (F&A) (SPECIFY RATE AND BASE)					
(Rate, Base)					
TOTAL INDIRECT COSTS (F&A)				0	
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)				400,000	
K. RESIDUAL FUNDS				0	
L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)				\$ 400,000	
M. COST SHARING PROPOSED LEVEL \$ _____		AGREED LEVEL IF DIFFERENT \$ _____			
PIPD NAME		Terry Demo		FOR NSF USE ONLY	
ORG. REF. NAME*		Terry Demo		INDIRECT COST RATE VERIFICATION	
				Date Checked: _____ Date of Next Check: _____ Initial: _____	

*ELECTRONIC SIGNATURES REQUIRED FOR REVISED BUDGET

Sections of an NSF Proposal

Current & Pending Support

This section of the proposal calls for information on all current and pending support for ongoing projects and proposals.

Example from FastLane

Current and Pending Support				
<small>(See GPO Section II.C.2.7 for guidance on information to include on this form.)</small>				
<small>The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.</small>				
<small>Investigator</small>		<small>Other agencies (including NSF) to which this proposal has been/will be submitted</small>		
Support:	<input type="checkbox"/> Current	<input type="checkbox"/> Pending	<input type="checkbox"/> Submission Planned in Near Future	<input type="checkbox"/> *Transfer of Support
Project/Proposal Title:				
Source of Support:				
Total Award Amount: \$	Total Award Period Covered:			
Location of Project:				
Person-Months Per Year Committed to the Project.	Cal:	Acad:	Sumr:	
Support:	<input type="checkbox"/> Current	<input type="checkbox"/> Pending	<input type="checkbox"/> Submission Planned in Near Future	<input type="checkbox"/> *Transfer of Support
Project/Proposal Title:				
Source of Support:				
Total Award Amount: \$	Total Award Period Covered:			
Location of Project:				
Person-Months Per Year Committed to the Project.	Cal:	Acad:	Sumr:	
Support:	<input type="checkbox"/> Current	<input type="checkbox"/> Pending	<input type="checkbox"/> Submission Planned in Near Future	<input type="checkbox"/> *Transfer of Support
Project/Proposal Title:				
Source of Support:				
Total Award Amount: \$	Total Award Period Covered:			
Location of Project:				
Person-Months Per Year Committed to the Project.	Cal:	Acad:	Sumr:	
Support:	<input type="checkbox"/> Current	<input type="checkbox"/> Pending	<input type="checkbox"/> Submission Planned in Near Future	<input type="checkbox"/> *Transfer of Support
Project/Proposal Title:				
Source of Support:				
Total Award Amount: \$	Total Award Period Covered:			
Location of Project:				
Person-Months Per Year Committed to the Project.	Cal:	Acad:	Sumr:	
Support:	<input type="checkbox"/> Current	<input type="checkbox"/> Pending	<input type="checkbox"/> Submission Planned in Near Future	<input type="checkbox"/> *Transfer of Support
Project/Proposal Title:				
Source of Support:				
Total Award Amount: \$	Total Award Period Covered:			
Location of Project:				
Person-Months Per Year Committed to the Project.	Cal:	Acad:	Sumr:	

*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.

Page G4 USE ADDITIONAL SHEETS AS NECESSARY

Sections of an NSF Proposal

Facilities, Equipment, and Other Resources

This section of the proposal is used to assess the adequacy of the organizational resources available to perform the effort proposed.

Example from FastLane

FACILITIES, EQUIPMENT & OTHER RESOURCES

FACILITIES: Identify the facilities to be used at each performance site listed and, as appropriate, indicate their capacities, pertinent capabilities, relative proximity, and extent of availability to the project. Use "Other" to describe the facilities at any other performance sites listed and at sites for field studies. USE additional pages as necessary.

Laboratory:

Clinical:

Animal:

Computer:

Office:

Other:

MAJOR EQUIPMENT: List the most important items available for this project and, as appropriate identifying the location and pertinent capabilities of each.

OTHER RESOURCES: Provide any information describing the other resources available for the project. Identify support services such as consultant, secretarial, machine shop, and electronics shop, and the extent to which they will be available for the project. Include an explanation of any consortium/contractual arrangements with other organizations.

Sections of an NSF Proposal

Special Information and Supplementary Documentation

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

Text from the GPG

(a) **Entertainment**
Costs of entertainment, amusement, diversion and social activities and any costs directly associated with such activities (such as tickets to shows or sporting events, meals, lodging, rentals, transportation and gratuities) are unallowable. Travel, meal and hotel expenses of grantee employees who are not on travel status are unallowable. Costs of employees on travel status are limited to those allowed under the governing cost principles for travel expenses.

(b) **Meals and Coffee Breaks**
No NSF funds may be spent on meals or coffee breaks for intramural meetings of an organization or any of its components, including, but not limited to, laboratories, departments and centers.

(c) **Alcoholic Beverages**
No NSF funds may be spent on alcoholic beverages.
Additional information on charging certain types of costs generally associated with meetings and conferences to NSF awards is available in AAG Chapter V.C.5.

h. **Current and Pending Support**
This section of the proposal calls for required information on all current and pending support for ongoing projects and proposals, including subsequent funding in the case of continuing grants. All current project support from whatever source (e.g., Federal, State, local or foreign government agencies, public or private foundations, industrial or other commercial organizations) must be listed. The proposed project and all other projects or activities requiring a portion of time of the PI and other senior personnel must be included, even if they receive no salary support from the project(s). The total award amount for the entire award period covered (including indirect costs) must be shown as well as the number of person-months per year to be devoted to the project, regardless of source of support. Similar information must be provided for all proposals already submitted or submitted concurrently to other possible sponsors, including NSF. Concurrent submission of a proposal to other organizations will not prejudice its review by NSF. Note the Biological Sciences Directorate exception to this policy, however, delineated in GPG Chapter I.G.2.
If the project now being submitted has been funded previously by a source other than NSF, the information requested in the paragraph above must be furnished for the last period of funding.

i. **Facilities, Equipment and Other Resources**
This section of the proposal is used to assess the adequacy of the organizational resources available to perform the effort proposed. Proposers must describe only those resources that are directly applicable.

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 sponsored projects office or in the references cited below.

- Rationale for performance of all or part of the project off-campus or away from organizational headquarters. (See AAG Chapter V.D.1)
- Documentation of collaborative arrangements of significance to the proposal through letters of commitment. (See GPG Chapter II.C.2.d.(iv))

Grant Proposal Guide II-17 NSF 09-29

Proposal Development Strategies

- **Key Questions for Prospective Investigators**

- What do you intend to do?
- Why is the work important?
- What has already been done?
- How are you going to do the work?

Proposal Development Strategies for Individual Investigators

- **Determine your long-term research and education goals**
- **Develop your bright idea**
 - Survey the literature
 - Contact other investigators currently working on the same subject
 - Prepare a brief concept paper
 - Discuss with your colleagues and mentors
- **Read solicitation instructions carefully**

Proposal Development Strategies for Individual Investigators

- **Prepare to carry out your project**
 - Determine available resources
 - Realistically assess your needs
 - Develop preliminary data
 - Present to your colleagues, mentors, and students
- **Determine possible funding sources**
- **Understand the ground rules**

Proposal Development Strategies: 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.**

Proposal Development Strategies: 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
- **Proposals that do not include a maximum one page supplementary document on mentoring activities will be returned without review.**
- **For collaborative proposals, the lead organization must submit a mentoring plan for all postdoctoral researchers supported under the entire collaborative project.**

Budgetary Guidelines

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

Amounts should be:

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

Eligible costs consist of:

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

Find Support for Proposal Writing

- **NSF Publications**
 - Program announcements and solicitations
 - The GPG
 - Web pages
 - Funded project abstracts
 - Reports and special publications
- **Targeted workshops**
- **Program Officers**
- **Mentors on Campus**
- **Former panelists**
- **Sponsored Research Office**
- **Successful proposals**

Finally, serving as a reviewer is helpful as well!

Grants for Rapid Response Research (RAPID)

The RAPID funding mechanism is for projects having a severe urgency with regard to availability of, or access to data, facilities or specialized equipment, including quick-response research on natural or anthropogenic disasters and similar unanticipated events.

Grants for Rapid Response Research (RAPID)

- Requests may be for up to \$200K and for one year of duration
- The project description is expected to be brief; no more than five pages
- Only internal merit review is required for RAPID proposals. Under rare circumstances, Program Officers may elect to obtain external reviews. If external merit review is to be used, then the PI will be informed

EARly-concept Grants for Exploratory Research (EAGER)

- The EAGER funding mechanism may be used to support exploratory work in its early stages on untested, but potentially transformative, research ideas or approaches.
- This work is considered especially "high risk-high payoff" because it involves radically different approaches, applies new expertise, or engages novel disciplinary or interdisciplinary perspectives.

EARly-concept Grants for Exploratory Research (EAGER)

- Requests may be for up to \$300K and for two years of duration
- Only internal merit review is required. Under rare circumstances, Program Officers may elect to obtain external reviews. If external merit review is to be used, then the PI will be informed
- No-cost extensions, and requests for supplemental funding may be requested but are subject to full external merit review

For More Information

Ask Early, Ask Often!

<http://www.nsf.gov/staff>

<http://www.nsf.gov/staff/orglist.jsp>