Research Experiences for Undergraduates   (REU)

Sites and Supplements

PROGRAM SOLICITATION

NSF 07-569

REPLACES DOCUMENT(S):
NSF 05-592

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 Cyberinfrastructure

Office of International Science and Engineering

Office of Polar Programs

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

September 13, 2007

   Deadline date for REU Site proposals, except those to the Antarctic Program

June 06, 2008

   Deadline date for REU Site proposals to the Antarctic Program

August 18, 2008

   Deadline date for REU Site proposals, except those to the Antarctic Program

June 05, 2009

   for REU Site proposals to the Antarctic Program ONLY. REU Site proposals to other directorates/divisions should be submitted at the fall 2009 deadline, which will be announced in a new solicitation that is currently under development.

REVISION NOTES

REU Supplements. A request for an REU Supplement to an existing award must be submitted via the NSF FastLane system.

Deadlines for REU Site proposals have been established for the FY2008 and FY2009 competitions.

The recommended stipend for undergraduate student participants has been raised.

A special opportunity for REU Supplements that provide *evaluative research* experiences has been added.

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

Research Experiences for Undergraduates (REU)
Sites and Supplements

Synopsis of Program:

The Research Experiences for Undergraduates (REU) program supports active research participation by undergraduate students in any of the areas of research funded by the National Science Foundation. REU projects involve students in meaningful ways in ongoing research programs or in research projects specifically designed for the REU program. This solicitation features two mechanisms for support of student research: (1) *REU Sites* are based on independent proposals to initiate and conduct projects that engage a number of students in research. REU Sites may be based in a single discipline or academic department, or on interdisciplinary or multi-department research opportunities with a coherent intellectual theme. Proposals with an international dimension are welcome. A partnership with the Department of Defense supports REU Sites in DoD-relevant research areas. (2) *REU Supplements* may be requested for ongoing NSF-funded research projects or may be included as a component of proposals for new or renewal NSF grants or cooperative agreements.

Undergraduate student participants in either Sites or Supplements must be citizens or permanent residents of the United States or its possessions.

Students may not apply to NSF to participate in REU activities. Students apply directly to REU Sites and should consult the directory of active REU Sites on the Web at http://www.nsf.gov/crssprgm/reu/reu_search.cfm.

Cognizant Program Officer(s):

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

- 47.041 --- Engineering
- 47.049 --- Mathematical and Physical Sciences
- 47.050 --- Geosciences
- 47.070 --- Computer and Information Science and Engineering
- 47.074 --- Biological Sciences
- 47.075 --- Social Behavioral and Economic Sciences
- 47.076 --- Education and Human Resources
- 47.078 --- Office of Polar Programs
- 47.079 --- Office of International Science and Engineering
- 47.080 --- Office of Cyberinfrastructure

Award Information

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

Estimated Number of Awards: 1,700 to 1,800   -- This estimate includes approximately 150 new Site awards and 1,600 new Supplement awards each year.

Anticipated Funding Amount: $57,000,000 in FY2008 -- This estimate includes both Sites and Supplements, pending availability of funds.

Eligibility Information

Organization Limit:

None Specified

PI Limit:

In addition to the Principal Investigator, an REU Site proposal may have one Co-Principal Investigator, if developing and operating the REU Site would involve shared responsibility. Other anticipated research supervisors should be listed as Non-Co-PI Senior Personnel.

 Limit on Number of Proposals per Organization:

None Specified

Limit on Number of Proposals per PI:

None Specified

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **Letters of Intent:** Not Applicable

- **Preliminary Proposal Submission:** Not Applicable

- **Full Proposals:**

  - Full Proposals submitted via FastLane: NSF Proposal and Award Policies and Procedures Guide, Part I: Grant Proposal Guide (GPG) Guidelines apply. The complete text of the GPG is available electronically on the NSF website at:
    http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg.

  - Full Proposals submitted via Grants.gov: NSF Grants.gov Application Guide: A Guide for the Preparation and

Submission of NSF Applications via Grants.gov Guidelines apply (Note: The NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide)

B. Budgetary Information

- **Cost Sharing Requirements:** Cost Sharing is not required under this solicitation.

- **Indirect Cost (F&A) Limitations:**

An administrative allowance, limited to 25% of the participant support stipend amount (Line F.1. on the FastLane budget and Field E.2. on the Grants.gov budget) only, is allowed for REU Site and Supplement awards in lieu of indirect costs. That amount should be entered under Total Indirect Costs (Line I on the FastLane budget and Field H on the Grants.gov budget).

- **Other Budgetary Limitations:** Not Applicable

C. Due Dates

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

  September 13, 2007

  > Deadline date for REU Site proposals, except those to the Antarctic Program

  June 06, 2008

  > Deadline date for REU Site proposals to the Antarctic Program

  August 18, 2008

  > Deadline date for REU Site proposals, except those to the Antarctic Program

  June 05, 2009

  > for REU Site proposals to the Antarctic Program ONLY. REU Site proposals to other directorates/divisions should be submitted at the fall 2009 deadline, which will be announced in a new solicitation that is currently under development.

Proposal Review Information Criteria

Merit Review Criteria: National Science Board approved criteria. Additional merit review considerations apply. Please see the full text of this solicitation for further information.

Award Administration Information

Award Conditions: Standard NSF award conditions apply.

Reporting Requirements: Standard NSF reporting requirements apply.

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I. INTRODUCTION

Research Experiences for Undergraduates (REU) is a Foundation-wide program that supports active research participation by undergraduate students. NSF funds research in most fields of science and engineering (see http://www.nsf.gov/funding/aboutfunding.jsp), and REU proposals are welcome in any of these research areas, including the priority areas (http://www.nsf.gov/news/priority_areas/) and cross-cutting areas (http://www.nsf.gov/funding/pgm_list.jsp?type=xcut) that NSF has identified for its programs.

The REU program seeks to expand student participation in all kinds of research--whether disciplinary, interdisciplinary, or educational in focus--encompassing efforts by individual investigators, groups, centers, national facilities, and others. The REU program is a major contributor to the NSF goal of developing a diverse, internationally competitive, and globally-engaged science and engineering workforce. It draws on the integration of research and education to attract a diversified pool of talented students into careers in science and engineering, including teaching and education research related to science and engineering, and to help ensure that these students receive the best education possible.

This solicitation features two mechanisms for support of student research: REU Sites and REU Supplements.

II. PROGRAM DESCRIPTION

Research experience is one of the most effective avenues for attracting talented undergraduates to, and retaining them in careers in, science and engineering, including careers in teaching and education research. The REU program, through both Sites and Supplements, aims to provide appropriate and valuable educational experiences for undergraduate students through participation in research. REU projects involve students in meaningful ways in ongoing research programs or in research projects specifically designed for the REU program. REU projects feature high-quality interaction of students with faculty and/or other research mentors and access to appropriate facilities and professional development opportunities.

REU opportunities are an excellent way to reach broadly into the student talent pool of our nation. NSF is particularly interested in increasing the numbers of women, underrepresented minorities, and persons with disabilities in research. REU projects are strongly encouraged to involve students who are members of these groups. (Underrepresented minorities are African Americans, Hispanics, American Indians, Alaska Natives, and Native Hawaiians or Other Pacific Islanders.) Historically, the vast majority of REU participants have been junior- or senior-level undergraduates--students who have typically already committed to a major in science or engineering. So that the REU program can succeed in attracting students into science and engineering who might not otherwise consider those majors and careers, projects are also encouraged, when appropriate, to involve students at earlier stages in their college experience.

REU Site and Supplement projects may be carried out during the summer months, during the academic year, or both. REU Sites may be proposed for durations of one to five years, with a three-year duration being typical in most NSF directorates. The term of REU Supplements may not exceed that of the underlying research project.

REU Sites

REU Sites are based on independent proposals, submitted for an annual deadline date, to initiate and conduct projects that engage a number of undergraduate students in research. Proposals for the establishment of an REU Site may be submitted to any of NSF's directorates or the Office of Polar Programs. The Office of International Science and Engineering and the Office of Cyberinfrastructure will consider co-funding relevant REU Sites that are primarily managed by other NSF units. Proposers are encouraged to talk with the NSF REU point-of-contact in their disciplinary area (see http://www.nsf.gov/crssprgm/reu/reu_contacts.jsp).

REU Sites must have a well-defined common focus that enables a cohort experience for students. These projects may be based in a single discipline or academic department, or on interdisciplinary or multi-department research opportunities with a coherent intellectual theme. A proposal should reflect the unique combination of the proposing organization's interests and capabilities and those of any partnering organizations. Cooperative arrangements among organizations and research settings will be considered so that a project might increase the quality or availability of undergraduate research experiences. To extend research opportunities to a larger number of undergraduates, proposers might also consider incorporating approaches that make use of cyberinfrastructure or other advanced technologies that facilitate research, learning, and collaboration over distances.

REU Sites are encouraged to involve students in research who might not otherwise have the opportunity, particularly those from academic institutions where research programs are limited. Thus, a significant fraction of the student participants should come from outside the host institution or organization.

Although proposals for the renewal of successful REU Sites are welcome, investigators are reminded that such proposals will be reviewed through the normal merit review process and there is no guarantee that a renewal grant will be awarded.

REU Supplements

An REU Supplement typically provides support for one or two undergraduate students to participate in research, as part of a new or ongoing NSF-funded research project. However, centers or large research efforts may request support for a number of students commensurate with the size and nature of the project. REU Supplements are supported by the various disciplinary and education research programs throughout the Foundation, including programs such as Small Business Innovation Research (SBIR).

REU Supplements may be obtained in either of two ways: (1) Investigators holding an existing NSF research award may submit a request for supplemental funding. For guidance, contact the cognizant program officer for the NSF grant or cooperative agreement that would be supplemented. (2) Proposers may include an REU Supplement activity as a component of a new (or renewal) research proposal to NSF. For guidance, contact the program officer who manages the research program to which the proposal would be submitted.

Special Opportunities

Partnership with the Department of Defense

NSF engages in a partnership with the Department of Defense (DoD) to expand undergraduate research opportunities in DoD-relevant research areas through the REU Sites program. The DoD activity is called *Awards to Stimulate and Support Undergraduate Research Experiences* (ASSURE; http://www.afosr.af.mil/ASSURE/assure_home.htm). Any proposal submitted to NSF for the REU Sites program that is recommended for funding through the NSF merit review process will be considered by DoD representatives for possible support through ASSURE. Proposals selected for the DoD funding target DoD-relevant research and may come from any of the NSF directorates or offices that handle REU Site proposals. Like NSF, DoD encourages proposals that reach underrepresented minorities and women, as well as students from academic institutions where access to research opportunities is limited. A proposer to the NSF REU Sites program does not need to take any additional steps to be considered for funding through ASSURE.

Cyberinfrastructure

NSF's Office of Cyberinfrastructure (OCI; http://www.nsf.gov/dir/index.jsp?org=OCI), which was launched in 2005, coordinates and supports the acquisition, development, and provision of state-of-the-art cyberinfrastructure (CI) resources, tools, and services essential to the conduct of 21st-century science and engineering research and education. While other NSF directorates and offices have substantial interests in domain-specific CI, OCI has a unique role within NSF as a catalyst for transformative research and education that emerges from interdisciplinary efforts. Although REU Site proposals may not be submitted directly to OCI, OCI is interested in REU Sites that make innovative use of CI and are *truly interdisciplinary* in nature, creating novel partnerships across several disciplines of science or engineering. OCI will consider co-funding such proposals that are submitted to other NSF directorates or offices and are found to be of interest in those units. In its role as a catalyst and co-funder, OCI hopes to encourage new CI-based mechanisms for the integration of research and education and new models for CI that could be implemented at many other REU Sites.

International Projects

The REU program encourages projects with an international dimension. Appropriate proposals can be considered for co-funding by NSF's Office of International Science and Engineering (OISE). International projects typically involve partnering a U.S. REU project with one or more international collaborators in a specific institution or organization. Successful international REU projects include (1) true intellectual collaboration with a foreign partner and (2) benefits that are realized from the expertise, specialized skills, facilities, phenomena, or other resources that the foreign collaborator or research environment provides. Due to higher travel costs, REU projects with an international dimension are typically expected to cost more per student than domestic projects. Such higher costs are offset by the value that NSF places on developing a globally engaged workforce and on providing U.S. undergraduates the benefits of international research experience. Projects with an international dimension also often have more complex logistics and a more complex mentoring arrangement than domestic projects; proposals should provide sufficient detail to demonstrate the feasibility of such arrangements. Proposals should include a description of the foreign collaborator's role in the project, a two-page Biographical Sketch for the foreign collaborator, and a letter of commitment from the foreign institution or organization. OISE will also consider requests to supplement an REU award to add an international dimension, including the participation of K-12 teachers of science, technology, engineering, and mathematics. Useful guidance for those planning international research experiences for undergraduates can be found in the report *Looking Beyond the Borders: A Project Director's Handbook of Best Practices for International Research Experiences for Undergraduates* (http://www.nsf.gov/pubs/2006/nsf06204/index.html). In all cases, those planning a project with an international dimension should discuss their idea with a program officer in OISE (see the list of contacts by country at
http://www.nsf.gov/od/oise/country-list.jsp), as well as with the appropriate disciplinary program officer for REU.

Ethics in Science or Engineering

Proposals for REU Sites are invited to include an optional component addressing ethics in science or engineering. Up to $4,000 in direct costs may be requested to support the ethics activities, and the proposal must include a distinct description and cost breakdown for these activities. Specific instructions for requesting funding for the optional ethics component are provided below, under "Supplementary Documentation" in Section V.A. ("Proposal Preparation Instructions"). Proposals that include the optional ethics component are often referred to a program officer in NSF's Ethics and Values in Science, Engineering, and Technology (EVS) program, who reviews the ethics component for possible funding by that program and offers suggestions to improve the ethics activities. Information about relevant interests in the EVS program is available via the Science and Society (S&S) home page and solicitation, http://www.nsf.gov/funding/pgm_summ.jsp?pims_id=5324&org=SES. In addition, the NSF-supported Online Ethics Center for Engineering and Science (http://www.onlineethics.org/) provides many useful resources for developing a pedagogically sound ethics component. Questions regarding the ethics component should be directed to the SBE Ethics REU program officer at (703) 292-7283 or reu.sbe.eth@nsf.gov.

Research Experiences for Teachers

NSF encourages research experiences for K-12 teachers of science, technology, engineering, and mathematics and the coordination of these experiences with REU projects. Most directorates support Research Experiences for Teachers (RET) as a formal activity and announce their specific interests (e.g., RET Sites, RET Supplements) either in solicitations, in "Dear Colleague" letters, or on directorate/division Websites. Other NSF units have no formal announcement but respond to requests for RET support on a case-by-case basis or permit the inclusion of an RET component (with a distinct description and cost breakdown) as part of an REU proposal. Teachers may also be included in an international REU project. Applicants who wish to include an RET component in an REU proposal may wish to contact the appropriate REU program officer for guidance.

REU Supplements for Evaluative Research Experiences

The Directorate for Education and Human Resources (EHR) will consider supporting REU Supplements that provide *evaluative research* experiences for one or two undergraduates in any NSF research or education project that employs a professional evaluator. The purpose of this opportunity for supplemental funding is to offer undergraduate students exposure to the field of evaluation and to build their skills in evaluative research methods and study design. The student's research should focus on the broader impacts of the research or education project. The professional evaluator attached to the award should have primary responsibility for designing and coordinating the student's evaluative research experience. Investigators interested in this opportunity should contact the EHR REU program officer at (703) 292-5137 or reu.ehr@nsf.gov before submitting a request for supplemental funding.

III. AWARD INFORMATION

An REU activity may be funded as a standard or continuing grant (for REU Sites), as a supplement to an existing award, or as a component of a new or renewal grant or cooperative agreement. REU Sites and Supplements are funded by various disciplinary and education research programs throughout NSF, and the number of awards made varies across the Foundation from year to year, as

does the amount of funds invested. In FY2008, NSF anticipates investing approximately $57 million (pending availability of funds) in approximately 150 new Site awards and 1,600 new Supplement awards. REU Site awards have durations of one to five years, with a three-year duration being typical in most NSF directorates. The term of REU Supplements may not exceed that of the underlying research project.

A grantee may pay stipends as either scholarships or wages, as it determines appropriate. In either case, funding received by individuals may be taxable income under the Internal Revenue Code of 1986 and may also be subject to state or local taxes. Please consult the Internal Revenue Service (IRS) for additional information. Students might find the IRS's "Tax Information for Students" Website (http://www.irs.gov/individuals/students/) to be particularly helpful.

IV. ELIGIBILITY INFORMATION

Organization Limit:

> None Specified

PI Limit:

> In addition to the Principal Investigator, an REU Site proposal may have one Co-Principal Investigator, if developing and operating the REU Site would involve shared responsibility. Other anticipated research supervisors should be listed as Non-Co-PI Senior Personnel.

Limit on Number of Proposals per Organization:

> None Specified

Limit on Number of Proposals per PI:

> None Specified

Additional Eligibility Info:

> The categories of proposers identified in the Grant Proposal Guide are eligible to submit proposals under this program solicitation.
>
> *Principal Investigator:* For REU Site proposals, a single individual should be designated as the Principal Investigator. This individual will be responsible for overseeing all aspects of the award. However, one additional person may be designated as Co-Principal Investigator, if developing and operating the REU Site would involve such shared responsibility. Other anticipated research supervisors should be listed as Non-Co-PI Senior Personnel.
>
> *Eligible Student Participants:* Undergraduate student participants supported with NSF funds in either Supplements or Sites must be citizens or permanent residents of the United States or its possessions. An undergraduate student is a student who is enrolled in a degree program (part-time or full-time) leading to a baccalaureate or associate degree. Students who are transferring from one college or university to another and are enrolled at neither institution during the intervening summer may participate. High school graduates who have been accepted at an undergraduate institution but who have not yet started their undergraduate study are also eligible to participate. Students who have received their bachelor's degrees and are no longer enrolled as undergraduates are generally not eligible to participate. For REU Sites, a significant fraction of the student participants should come from outside the host institution or organization. Some NSF directorates encourage inclusion in the REU program of K-12 teachers of science, technology, engineering, and mathematics. Please contact the appropriate disciplinary program officer for guidance. Within the framework of the basic eligibility guidelines outlined here, most REU Sites and Supplements further define recruitment and selection criteria, based on the nature of the particular research and other factors.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Full Proposal Preparation Instructions: Proposers may opt to submit proposals in response to this Program Solicitation via Grants.gov or via the NSF FastLane system.

- Full proposals submitted via FastLane: Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the general guidelines contained in the NSF Grant Proposal Guide (GPG). The complete text of the GPG is available electronically on the NSF website at: http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpg. Paper copies of the GPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from pubs@nsf.gov. Proposers are reminded to identify this program solicitation number in the program solicitation block on the NSF Cover Sheet For Proposal to the National Science Foundation. Compliance with this requirement is critical to determining the relevant proposal processing guidelines. Failure to submit this information may delay processing.

- Full proposals submitted via Grants.gov: Proposals submitted in response to this program solicitation via Grants.gov should be prepared and submitted in accordance with the NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov. The complete text of the NSF Grants.gov Application Guide is available on the Grants.gov website and on the NSF website at: (http://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide). To obtain copies of the Application Guide and Application Forms Package, click on the Apply tab on the Grants.gov site, then click on the Apply Step 1: Download a

Grant Application Package and Application Instructions link and enter the funding opportunity number, (the program solicitation number without the NSF prefix) and press the Download Package button. Paper copies of the Grants.gov Application Guide also may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from pubs@nsf.gov.

In determining which method to utilize in the electronic preparation and submission of the proposal, please note the following:

Collaborative Proposals. All collaborative proposals submitted as separate submissions from multiple organizations must be submitted via the NSF FastLane system. Chapter II, Section D.3 of the Grant Proposal Guide provides additional information on collaborative proposals.

Note that NSF's proposal margin and spacing requirements (Grant Proposal Guide, Chapter II, Section B.2) now specify that *only five fonts (Arial, Helvetica, Palatino, Computer Modern, or Georgia), in a size of 10 points or larger, may be used in a proposal.*

PROPOSAL FOR REU SITE

The following instructions supplement those found in the GPG or NSF Grants.gov Application Guide.

Cover Sheet. When preparing the Cover Sheet in FastLane's Proposal Preparation module, select the Program Announcement/Solicitation No. for this solicitation from the pull-down list. Grants.gov Users: The program solicitation number will be pre-populated by Grants.gov on the NSF Grant Application Cover Page. Select the Division(s) to which the proposal is directed. If the proposal has a cross-disciplinary research focus, choose the Division(s) that seems most relevant (often this is the Division corresponding to the departmental affiliation of the Principal Investigator), and NSF staff will ensure that the proposal is reviewed by people who have expertise that is appropriate to the proposal's content. The REU-associated program within the Division(s) that you selected will appear automatically in the "Current List of NSF Selected Units" at the bottom of the screen. Begin the title of the proposed project with the label "REU Site:" and carefully choose a project title that will permit prospective student participants to easily identify the focus of the site. A single individual should be designated as Principal Investigator (PI). This individual will be responsible for overseeing all aspects of the REU Site award. However, one additional person may be designated as Co-PI if developing and operating the REU Site would involve such shared responsibility. Other anticipated research supervisors should be designated as Non-Co-PI Senior Personnel and are not listed on the Cover Sheet.

Project Summary (limited to one page). So that program officers can sort proposals efficiently and accurately for review, please structure this section as follows, with a list of "Project Elements" followed by a short, narrative "Project Summary":

- *PROJECT ELEMENTS:*
    - New REU Site, or renewal of previously funded REU Site (provide previous NSF Award No.)?:
    - Project title (as shown on Cover Sheet):
    - Principal Investigator:
    - Submitting organization:
    - Other organizations involved in the project's operation:
    - Location(s) (universities, national labs, field stations, etc.) at which the proposed undergraduate research will occur:
    - Main field(s) and sub-field(s) of the research:
    - No. of undergraduate participants per year:
    - Summer REU Site, or academic year REU Site?:
    - No. of weeks per year that the students will participate:
    - Does the project include an international component, ethics component, or RET component?:
    - Name, phone number, and e-mail address of point-of-contact for student applicants:
    - Web address (URL) for information about the REU Site (if known):

- *PROJECT SUMMARY:* Briefly describe the project's objectives, activities, students to be recruited, and intended impact. In separate sections clearly labeled "Intellectual Merit" and "Broader Impacts," address NSF's two merit review criteria. *Proposals that do not separately address both merit review criteria within the one-page Project Summary will be returned without review.*

Project Description. Address items "(a)" through "(f)" below. The Project Description must not exceed 15 pages.

a. *Overview.* Provide a brief description of the objectives of the proposed REU Site, targeted student participants, intellectual focus, organizational structure, timetable, and participating organizations' commitment to the REU activity.

b. *Nature of Student Activities*. Proposals should address the approach to undergraduate research training being taken, and should provide detailed descriptions of examples of research projects that students will pursue. So that reviewers can evaluate intellectual merit, this discussion should indicate the significance of the research area and, when appropriate, the underlying theoretical framework, hypotheses, research questions, etc. NSF believes that undergraduate research experiences have their greatest impact in situations that lead the participants from a relatively dependent status to as independent a status as their competence warrants. Proposals must present plans that will ensure the development of student-faculty interaction and student-student communication. Development of collegial relationships and interactions is an important part of the project.

c. *The Research Environment*. This subsection should describe the experience, and the record of the involvement with undergraduate research, of the PI, the faculty who may serve as research mentors, and the institution(s) or organization(s) where the research will occur. The description should include information on the record of faculty/mentors in publishing work involving undergraduate authors and in providing professional development opportunities for student researchers. This subsection should also discuss the diversity of the mentor pool and any training, mentoring, or monitoring that mentors have received or will receive to help them mentor students effectively during the research experience. The facilities, equipment, and other resources available to support the proposed undergraduate research activities should be described in relation to those activities. The NSF form on Facilities, Equipment, and Other Resources is not required; instead, such information should be included in this subsection.

d. *Student Recruitment and Selection*. The overall quality of the student recruitment and selection processes and criteria will be an important element in the evaluation of the proposal. The recruitment plan should be described with as much specificity as possible, including the types and/or names of academic institutions where students will be recruited and the efforts that will be made to attract members of underrepresented groups (women, minorities, and persons with disabilities).

In addition to increasing the participation of underrepresented groups, another goal of the program is to involve students in research who might not otherwise have the opportunity, particularly those from academic institutions where research programs are limited. Thus, a significant fraction of the student participants should come from outside the host institution or organization. The number of students per project should be appropriate to the institutional or organizational setting and to the manner in which research is conducted in the discipline. Proposals

involving fewer than six students total are discouraged.

Undergraduate student participants supported with NSF funds in either REU Sites or REU Supplements must be citizens or permanent residents of the United States or its possessions.

e. *Project Evaluation and Reporting.* Describe the plan to measure qualitatively and quantitatively the success of the project in achieving its goals, particularly the degree to which students have learned and their perspectives on science, engineering, or education research related to these disciplines have been expanded. Evaluation may involve periodic measures throughout the project to ensure that it is progressing satisfactorily according to the project plan, and may involve pre-project and post-project measures aimed at determining the degree of student learning that has been achieved. In addition, it is highly desirable to have a structured means of tracking participating students beyond graduation, with the aim of gauging the degree to which the REU Site experience has been a lasting influence in the students' career paths. Proposers may wish to consult *The 2002 User-Friendly Handbook for Project Evaluation* (NSF 02-057; http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf02057) for guidance on the elements in a good evaluation plan. Although not required, REU Site PIs may wish to engage specialists in education research (from their organization or another one) in planning and implementing the project evaluation.

PIs are required to submit annual project reports through Fastlane's Project Reports System. When preparing these reports, REU Site PIs should follow the guidelines in the publication *REU Site Awards: Guidelines for Use of NSF FastLane Project Reports System* (NSF 01-124; http://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf01124). The data needed for the project report should feed into the project evaluation plan. For projects that have received funding for the optional Ethics in Science or Engineering component, the project report should include a description of the progress of the ethics-related activities and the evaluation of their effectiveness.

f. *Results from Prior NSF Support (if applicable).* If the submitting organization has received prior support through an REU Site award in the disciplinary area(s) of the proposal, the Project Description must include a subsection entitled "Results from Prior NSF Support," which may occupy up to five pages of the 15-page Project Description. This subsection must describe the earlier REU project(s) and outcomes in sufficient detail to permit reviewers to reach an informed conclusion regarding the value of the results achieved. Valuable information typically includes results from the project evaluation; summary information about recruiting efforts and the number of applicants, the demographic make-up of participants and their home institutions, and career choices of participants; and a list of publications or reports (already published or to be submitted) resulting from the NSF award.

Biographical Sketches. Provide Biographical Sketches for all Senior Personnel, up to a total of 12 people. Senior Personnel include the PI, the Co-PI (if one has been designated), and other faculty/professionals who are anticipated to serve as research mentors. Biographical Sketches should follow the standard specifications for format and length but should include, if applicable, any publications with undergraduate co-authors (with the student labeled by an asterisk) and other activities or accomplishments relevant to a successful REU Site.

Budget. Project costs are predominantly for student support and may include such items as participant stipends, housing, meals, travel, tuition, or laboratory use. An REU Site may not charge the student an application fee. The level of other allowable costs, such as faculty salaries, varies among NSF units. Proposers are urged to contact the appropriate disciplinary REU program officer (see http://www.nsf.gov/crssprgm/reu/reu_contacts.jsp) with any questions about the project budget.

As a guide to budget development, student stipends for summer projects are expected to be approximately $450 per student per week, in addition to other participant costs of room and board, fees, and travel, with academic-year stipends comparable on a pro rata basis. All student costs should be entered as Participant Support Costs (Line F on the FastLane budget and Field E on the Grants.gov budget). Total project costs are expected to be typically $700 to $900 per student per week. *This is a guideline figure, neither a floor nor a ceiling.*

An administrative allowance, limited to 25% of the participant support stipend amount (Line F.1. on the FastLane budget and Field E.2. on the Grants.gov budget) only, is allowed for REU awards in lieu of indirect costs. Enter the administrative allowance under Total Indirect Costs (Line I on the FastLane budget and Field H on the the Grants.gov budget).

The Budget Justification (limited to three pages) should explain and justify major cost items and any unusual items or situations, such as field work or international collaborations, and should address the cost-effectiveness of the project. Projects that involve an international component or field work often have larger budgets than other projects. This feature is understandable, but the extra costs should be described in the Budget Justification. If the proposal includes funds for the optional ethics component, the Budget Justification should include a cost breakdown and total for the ethics activities.

Current and Pending Support. Provide this information for all Senior Personnel, up to a total of 12 people. Senior Personnel include the PI, the Co-PI (if one has been designated), and other faculty/professionals who are anticipated to serve as research mentors.

Facilities, Equipment, and Other Resources. This form is not required, but the relevant information should be included in the subsection of the Project Description that addresses the research environment. In the Facilities, Equipment, and Other Resources form, you may type "Not Applicable" or "See information in the Project Description."

Supplementary Documentation. The following two additional items may be provided:

Optional Ethics Component (limited to three pages). REU Site proposals may include support for activities focusing on ethics in science or engineering. The proposed ethics component should be described fully in the Supplementary Documentation section of the proposal, not in the Project Description. The description of the ethics component should include the following: (1) ethics issues or topics that relate to the scientific content of the project and/or to issues of professional conduct of research; (2) participating faculty and other individuals with appropriate credentials in ethics, including outside ethicists as necessary; (3) activities that show how students and REU mentors will be engaged in ethics discussions designed to present ethics concepts and skills for resolution of ethical issues, using approaches such as seminars, student presentations and reports, role-playing, case studies, and outside speaker presentations; (4) products such as reports, presentations, and Web-based materials; (5) a formative evaluation plan to be used to improve the component; and (6) results from any prior support for an ethics component.

Proposal budgets may include up to $4,000 per year in direct costs to support ethics activities; these funds are not included in the guideline of $700 to $900 per student per week. Because a separate budget sheet for the ethics activities is not possible in FastLane or Grants.gov, the ethics activities should be added into the yearly proposal budget. In the Budget Justification, the ethics activities must be itemized separately and clearly, and the total (up to $4,000) for the ethics items must be indicated.

Letters of Commitment. Up to five signed letters documenting collaborative arrangements of significance to the proposal may be scanned and placed in this section. Letters may be relevant where the awardee and performing organizations are different, where faculty or facilities at more than one institution or organization are to be employed, or where international activities are planned.

Other letters--for example, letters of endorsement--are not permitted.

REQUEST FOR REU SUPPLEMENT

Many of the research programs throughout the Foundation support REU activities that are requested either (1) as a supplement to an existing grant or cooperative agreement or (2) as a component of a new (or renewal) research proposal. Specific guidance for the use of either mechanism is given in the last two paragraphs of this section (below). Regardless of which mechanism is used to request an REU Supplement, the description of the REU activity should discuss the following: (1) the form and nature of each prospective student's involvement in the research project; (2) the experience of the PI (or other prospective research mentors) in involving undergraduates in research, including any previous REU Supplement support and the outcomes from that support; and (3) the process and criteria for selecting the student(s). If the student has been pre-selected (as might be true in the case of a supplement for an ongoing award), then the grounds for selection and a brief biographical sketch of the student should be included.

Normally, funds may be requested for up to two students, but exceptions will be considered for training additional qualified students who are members of underrepresented groups (women, minorities, and persons with disabilities). Centers or large research efforts may request support for a number of students commensurate with the size and nature of the project. As a guide to budget development, student stipends for summer projects are expected to be comparable to those of REU Site participants, approximately $450 per week per student, in addition to other participant support costs of room and board, fees, and travel, with academic-year stipends comparable on a pro rata basis. Total costs for a summer are expected to be typically $700 to $900 per student per week. *This is a guideline figure, neither a floor nor a ceiling.*

Results from any REU Supplement activities must be included in the annual project report for the associated award.

For guidance about preparing an REU Supplement request for an existing NSF award, contact the program officer assigned to the NSF award that would be supplemented. For guidance about preparing an REU Supplement request as a component of a new (or renewal) research proposal, contact the program officer who manages the relevant research program.

A request for an REU Supplement to an existing NSF award should be prepared by the PI in FastLane in accordance with the guidelines found in the GPG; the following instructions supplement those found in the GPG. After logging into FastLane, choose "Award and Reporting Functions," and then "Supplemental Funding Request." Next, choose the award to be supplemented. In the form entitled "Summary of Proposed Work," state that this is a request for an REU Supplement. In the form entitled "Justification for Supplement," include the information described above in the first paragraph under the subheading "REQUEST FOR REU SUPPLEMENT"; limit your response to three pages. If an REU student has been pre-selected, you may place a brief biographical sketch in Supplementary Documents. Prepare a budget, including a justification of the funds requested for student support and their proposed use. All student costs should be entered on Line F (Participant Support Costs) of the proposal budget. An administrative allowance, limited to 25% of Line F.1 (Participant Support Costs: Stipends) only, is allowed for REU awards in lieu of indirect costs; enter the administrative allowance on Line I (Indirect Costs) of the proposal budget. After you have prepared the request for supplemental funding, forward it to your organization's Sponsored Research Office (SRO), which will submit the request to NSF. The term of an REU Supplement may not exceed that of the underlying research project.

A request for an REU Supplement as part of a proposal for a new or renewal grant or cooperative agreement should be embedded in the proposal as follows. Enter the description of the REU activity (namely, the information described above in the first paragraph under the subheading "REQUEST FOR REU SUPPLEMENT") in the section for Supplementary Documentation. Limit this description to three pages. Include the budget for the REU activity in the yearly project budget. Enter all student costs under participant support costs (Line F on the FastLane budget and Field E on the Grants.gov budget). An administrative allowance, limited to 25% of the REU portion of the participant support stipend amount only, is allowed for the REU portion in lieu of indirect costs; add the administrative allowance into Total Indirect Costs (Line I on the FastLane budget and Field H on the Grants.gov budget) of the proposal budget. As part of the Budget Justification, provide a separate explanation of the REU Supplement request, with the proposed student costs itemized and justified and a total given for the items plus administrative allowance. If the intent is to engage students as technicians, then an REU Supplement is not the appropriate support mechanism; instead, support should be entered on the Undergraduate Students line of the proposal budget.

B. Budgetary Information

Cost Sharing: Cost sharing is not required under this solicitation.

Indirect Cost (F&A) Limitations:

An administrative allowance, limited to 25% of the participant support stipend amount (Line F.1. on the FastLane budget and Field E.2. on the Grants.gov budget) only, is allowed for REU Site and Supplement awards in lieu of indirect costs. That amount should be entered under Total Indirect Costs (Line I on the FastLane budget and Field H on the Grants.gov budget).

C. Due Dates

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

    September 13, 2007

        Deadline date for REU Site proposals, except those to the Antarctic Program

    June 06, 2008

        Deadline date for REU Site proposals to the Antarctic Program

    August 18, 2008

        Deadline date for REU Site proposals, except those to the Antarctic Program

    June 05, 2009

        for REU Site proposals to the Antarctic Program ONLY. REU Site proposals to other directorates/divisions should be submitted at the fall 2009 deadline, which will be announced in a new solicitation that is currently under development.

Deadline for REU Site proposals: September 13, 2007; August 18, 2008.

Deadline for REU Site proposals to the Antarctic Program: June 6, 2008; June 5, 2009. Note that the June 6, 2007, deadline is covered by the previous REU program solicitation, NSF 05-592.

Deadline for REU Supplement requests: Varies with the research program. Contact the cognizant program officer for the award or proposal that would be supplemented.

D. FastLane/Grants.gov Requirements

- **For Proposals Submitted Via FastLane:**

  Detailed technical instructions regarding the technical aspects of preparation and submission via FastLane are available at: https://www.fastlane.nsf.gov/a1/newstan.htm. For FastLane user support, call the FastLane Help Desk at 1-800-673-6188 or e-mail fastlane@nsf.gov. The FastLane Help Desk answers general technical questions related to the use of the FastLane system. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this funding opportunity.

  Submission of Electronically Signed Cover Sheets. The Authorized Organizational Representative (AOR) must electronically sign the proposal Cover Sheet to submit the required proposal certifications (see Chapter II, Section C of the Grant Proposal Guide for a listing of the certifications). The AOR must provide the required electronic certifications within five working days following the electronic submission of the proposal. Further instructions regarding this process are available on the FastLane Website at: https://www.fastlane.nsf.gov/fastlane.jsp.

- **For Proposals Submitted Via Grants.gov:**

  Before using Grants.gov for the first time, each organization must register to create an institutional profile. Once registered, the applicant's organization can then apply for any federal grant on the Grants.gov website. The Grants.gov's Grant Community User Guide is a comprehensive reference document that provides technical information about Grants.gov. Proposers can download the User Guide as a Microsoft Word document or as a PDF document. The Grants.gov User Guide is available at: http://www.grants.gov/CustomerSupport. In addition, the NSF Grants.gov Application Guide provides additional technical guidance regarding preparation of proposals via Grants.gov. For Grants.gov user support, contact the Grants.gov Contact Center at 1-800-518-4726 or by email: support@grants.gov. The Grants.gov Contact Center answers general technical questions related to the use of Grants.gov. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

  Submitting the Proposal: Once all documents have been completed, the Authorized Organizational Representative (AOR) must submit the application to Grants.gov and verify the desired funding opportunity and agency to which the application is submitted. The AOR must then sign and submit the application to Grants.gov. The completed application will be transferred to the NSF FastLane system for further processing.

VI. NSF PROPOSAL PROCESSING AND REVIEW PROCEDURES

Proposals received by NSF are assigned to the appropriate NSF program where they will be reviewed if they meet NSF proposal preparation requirements. All proposals are carefully reviewed by a scientist, engineer, or educator serving as an NSF Program Officer, and usually by three to ten other persons outside NSF who are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with the oversight of the review process. Proposers are invited to suggest names of persons they believe are especially well qualified to review the proposal and/or persons they would prefer not review the proposal. These suggestions may serve as one source in the reviewer selection process at the Program Officer's discretion. Submission of such names, however, is optional. Care is taken to ensure that reviewers have no conflicts of interest with the proposal.

A. NSF Merit Review Criteria

All NSF proposals are evaluated through use of the two National Science Board (NSB)-approved merit review criteria: intellectual merit and the broader impacts of the proposed effort. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two NSB-approved merit review criteria are listed below. The criteria include considerations that help define them. These considerations are suggestions and not all will apply to any given proposal. While proposers must address both merit review criteria, reviewers will be asked to address only those considerations that are relevant to the proposal being considered and for which the reviewer is qualified to make judgements.

What is the intellectual merit of the proposed activity?
How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of the prior work.) To what extent does the proposed activity suggest and explore creative, original, or potentially transformative concepts? How well conceived and organized is the proposed activity? Is there sufficient access to resources?

What are the broader impacts of the proposed activity?
How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?

Examples illustrating activities likely to demonstrate broader impacts are available electronically on the NSF website at: http://www.nsf.gov/pubs/gpg/broaderimpacts.pdf.

NSF staff also will give careful consideration to the following in making funding decisions:

Integration of Research and Education
One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learning perspectives.

Integrating Diversity into NSF Programs, Projects, and Activities
Broadening opportunities and enabling the participation of all citizens -- women and men, underrepresented minorities, and persons with disabilities -- is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.

Additional Review Criteria:

Reviewers will be asked to interpret the two basic NSF review criteria in the context of the REU program. In addition, they will be asked to place emphasis on the following considerations:

1. Appropriateness and value of the educational experience for the student participants, particularly the appropriateness of the research project(s) for undergraduate involvement and the nature of the students' participation in these activities.
2. Quality of the research environment, including the facilities, the preparedness of the research mentor(s) to guide undergraduate research, and the professional development opportunities for the students.
3. Appropriateness of the student recruitment and selection plans, including those for involving students from underrepresented groups and from academic institutions with limited research opportunities.
4. Quality of plans for student preparation and for follow-through designed to promote continuation of student interest and involvement in research.
5. For REU Sites: appropriateness and cost-effectiveness of the budget, effectiveness of the plans for managing the project and evaluating the outcomes, and commitment of partners, if relevant.
6. For REU Sites that request funding for the optional Ethics in Science or Engineering component: appropriateness and quality of the proposed ethics activities.

B. Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by Ad hoc Review and/or Panel Review.

Reviewers will be asked to formulate a recommendation to either support or decline each proposal. The Program Officer assigned to manage the proposal's review will consider the advice of reviewers and will formulate a recommendation.

After scientific, technical and programmatic review and consideration of appropriate factors, the NSF Program Officer recommends to the cognizant Division Director whether the proposal should be declined or recommended for award. NSF is striving to be able to tell applicants whether their proposals have been declined or recommended for funding within six months. The time interval begins on the deadline or target date, or receipt date, whichever is later. The interval ends when the Division Director accepts the Program Officer's recommendation.

A summary rating and accompanying narrative will be completed and submitted by each reviewer. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of the reviewers, are sent to the Principal Investigator/Project Director by the Program Officer. In addition, the proposer will receive an explanation of the decision to award or decline funding.

In all cases, after programmatic approval has been obtained, the proposals recommended for funding will be forwarded to the Division of Grants and Agreements for review of business, financial, and policy implications and the processing and issuance of a grant or other agreement. Proposers are cautioned that only a Grants and Agreements Officer may make commitments, obligations or awards on behalf of NSF or authorize the expenditure of funds. No commitment on the part of NSF should be inferred from technical or budgetary discussions with a NSF Program Officer. A Principal Investigator or organization that makes financial or personnel commitments in the absence of a grant or cooperative agreement signed by the NSF Grants and Agreements Officer does so at their own risk.

VII. AWARD ADMINISTRATION INFORMATION

A. Notification of the Award

Notification of the award is made to *the submitting organization* by a Grants Officer in the Division of Grants and Agreements. Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator. (See Section VI.B. for additional information on the review process.)

B. Award Conditions

An NSF award consists of: (1) the award letter, which includes any special provisions applicable to the award and any numbered amendments thereto; (2) the budget, which indicates the amounts, by categories of expense, on which NSF has based its support (or otherwise communicates any specific approvals or disapprovals of proposed expenditures); (3) the proposal referenced in the award letter; (4) the applicable award conditions, such as Grant General Conditions (GC-1); * or Research Terms and Conditions * and (5) any announcement or other NSF issuance that may be incorporated by reference in the award letter. Cooperative agreements also are administered in accordance with NSF Cooperative Agreement Financial and Administrative Terms and Conditions (CA-FATC) and the applicable Programmatic Terms and Conditions. NSF awards are electronically signed by an NSF Grants and Agreements Officer and transmitted electronically to the organization via e-mail.

*These documents may be accessed electronically on NSF's Website at
http://www.nsf.gov/awards/managing/award_conditions.jsp?org=NSF. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-7827 or by e-mail from pubs@nsf.gov.

More comprehensive information on NSF Award Conditions and other important information on the administration of NSF awards is contained in the NSF *Award & Administration Guide* (AAG) Chapter II, available electronically on the NSF Website at http://www.nsf.gov/publications/pub_summ.jsp?ods_key=aag.

C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the Principal Investigator must submit an annual project report to the cognizant Program Officer at least 90 days before the end of the current budget period. (Some programs or awards require more frequent project reports). Within 90 days after expiration of a grant, the PI also is required to submit a final project report.

Failure to provide the required annual or final project reports will delay NSF review and processing of any future funding increments as well as any pending proposals for that PI. PIs should examine the formats of the required reports in advance to assure availability of required data.

PIs are required to use NSF's electronic project-reporting system, available through FastLane, for preparation and submission of annual and final project reports. Such reports provide information on activities and findings, project participants (individual and organizational) publications; and, other specific products and contributions. PIs will not be required to re-enter information previously provided, either with a proposal or in earlier updates using the electronic system. Submission of the report via FastLane constitutes certification by the PI that the contents of the report are accurate and complete.

VIII. AGENCY CONTACTS

General inquiries regarding this program should be made to:

For questions related to the use of FastLane, contact:

- FastLane Help Desk, telephone: 1-800-673-6188; e-mail: fastlane@nsf.gov.

For questions relating to Grants.gov contact:

- Grants.gov Contact Center: If the Authorized Organizational Representatives (AOR) has not received a confirmation message from Grants.gov within 48 hours of submission of application, please contact via telephone: 1-800-518-4726; e-mail: support@grants.gov.

NSF REU Contacts: http://www.nsf.gov/crssprgm/reu/reu_contacts.jsp

IX. OTHER INFORMATION

The NSF Website provides the most comprehensive source of information on NSF Directorates (including contact information), programs and funding opportunities. Use of this Website by potential proposers is strongly encouraged. In addition, National Science Foundation Update is a free e-mail subscription service designed to keep potential proposers and other interested parties apprised of new NSF funding opportunities and publications, important changes in proposal and award policies and procedures, and upcoming NSF Regional Grants Conferences. Subscribers are informed through e-mail when new publications are issued that match their identified interests. Users can subscribe to this service by clicking the "Get NSF Updates by Email" link on the NSF web site.

Grants.gov provides an additional electronic capability to search for Federal government-wide grant opportunities. NSF funding opportunities may be accessed via this new mechanism. Further information on Grants.gov may be obtained at http://www.grants.gov.

Related NSF programs that provide research experiences for students:

- Alliances for Broadening Participation in STEM (ABP)
- Computational Science Training for Undergraduates in the Mathematical Sciences (CSUMS)
- Cooperative Activity with Department of Energy Programs for Education and Human Resource Development
- Developing Global Scientists and Engineers (International Research Experiences for Students [IRES])
- Engineering Research Centers (ERC)
- Enhancing the Mathematical Sciences Workforce in the 21st Century (EMSW21)
- Historically Black Colleges and Universities Undergraduate Program (HBCU-UP)
- Interdisciplinary Training for Undergraduates in Biological and Mathematical Sciences (UBM)
- Materials Research Science and Engineering Centers (MRSEC)
- Nanotechnology Undergraduate Education (NUE) in Engineering
- Research Experiences for High School Students (RAHSS): Directorate for Biological Sciences
- Research Experiences for Teachers (RET): Directorate for Biological Sciences
- Research Experiences for Teachers (RET): Directorate for Computer & Information Sciences & Engineering
- Research Experiences for Teachers (RET): Directorate for Geosciences
- Research Experiences for Teachers (RET) in Engineering
- Research in Undergraduate Institutions (RUI)
- Science and Technology Centers (STC)
- Tribal Colleges and Universities Program (TCUP)

ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) is an independent Federal agency created by the National Science Foundation Act of 1950, as amended (42 USC 1861-75). The Act states the purpose of the NSF is "to promote the progress of science; [and] to advance the national health, prosperity, and welfare by supporting research and education in all fields of science and engineering."

NSF funds research and education in most fields of science and engineering. It does this through grants and cooperative agreements to more than 2,000 colleges, universities, K-12 school systems, businesses, informal science organizations and other research organizations throughout the US. The Foundation accounts for about one-fourth of Federal support to academic institutions for basic research.

NSF receives approximately 40,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships. The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels and Antarctic research stations. The Foundation also supports cooperative research between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

Facilitation Awards for Scientists and Engineers with Disabilities provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects. See Grant Proposal Guide Chapter II, Section D.2 for instructions regarding preparation of these types of proposals.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation about NSF programs, employment or general information. TDD may be accessed at (703) 292-5090 and (800) 281-8749, FIRS at (800) 877-8339.

The National Science Foundation Information Center may be reached at (703) 292-5111.

> The National Science Foundation promotes and advances scientific progress in the United States by competitively awarding grants and cooperative agreements for research and education in the sciences, mathematics, and engineering.
>
> To get the latest information about program deadlines, to download copies of NSF publications, and to access abstracts of awards, visit the NSF Website at http://www.nsf.gov
>
> - **Location:**   4201 Wilson Blvd. Arlington, VA 22230
>
> - **For General Information**   (703) 292-5111
>   (NSF Information Center)**:**
>
> - **TDD (for the hearing-impaired):**   (703) 292-5090
>
> - **To Order Publications or Forms:**
>
>   Send an e-mail to: pubs@nsf.gov
>
>   or telephone: (703) 292-7827
>
> - **To Locate NSF Employees:**   (703) 292-5111

PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; and project reports submitted by awardees will be used for program evaluation and reporting within the Executive Branch and to Congress. The information requested may be disclosed to qualified reviewers and staff assistants as part of the proposal review process; to proposer institutions/grantees to provide or obtain data regarding the proposal review process, award decisions, or the administration of awards; to government contractors, experts, volunteers and researchers and educators as necessary to complete assigned work; to other government agencies or other entities needing information regarding applicants or nominees as part of a joint application review process, or in order to coordinate programs or policy; and to another Federal agency, court, or party in a court or Federal administrative proceeding if the government is a party. Information about Principal Investigators may be added to the Reviewer file and used to select potential candidates to serve as peer reviewers or advisory committee members. See Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," 69 Federal Register 26410 (May 12, 2004), and NSF-51, "Reviewer/Proposal File and Associated Records, " 69 Federal Register 26410 (May 12, 2004). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

An agency may not conduct or sponsor, and a person is not required to respond to, an information collection unless it displays a valid Office of Management and Budget (OMB) control number. The OMB control number for this collection is 3145-0058. Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding the burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to:

Suzanne H. Plimpton
Reports Clearance Officer
Division of Administrative Services
National Science Foundation

Arlington, VA 22230