# Broadening Participation Research Initiation Grants in Engineering (BRIGE)

**PROGRAM SOLICITATION** 

**NSF 08-606** 

REPLACES DOCUMENT(S): NSF 07-589



# National Science Foundation

Directorate for Engineering Electrical, Communications and Cyber Systems Division of Chemical, Bioengineering, Environmental, and Transport Systems Civil, Mechanical and Manufacturing Innovation Engineering Education and Centers Industrial Innovation and Partnerships

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

February 13, 2009

# **REVISION NOTES**

A revised version of the NSF Proposal & Award Policies & Procedures Guide (PAPPG), NSF 09-1, was issued on October 1, 2008 and is effective for proposals submitted on or after January 5, 2009. Please be advised that the guidelines contained in NSF 09-1 apply to proposals submitted in response to this funding opportunity. Proposers who opt to submit prior to January 5th, 2009, must also follow the guidelines contained in NSF 09-1.

One of the most significant changes to the PAPPG is implementation of the mentoring provisions of the America COMPETES Act. 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. Proposals that do not include a separate section on mentoring activities within the Project Description will be returned without review (see the PAPP Guide Part I: *Grant Proposal Guide* Chapter II.C.2.d for further information).

# SUMMARY OF PROGRAM REQUIREMENTS

# **General Information**

## Program Title:

Broadening Participation Research Initiation Grants in Engineering (BRIGE)

## Synopsis of Program:

The Directorate for Engineering (ENG) at the National Science Foundation offers a research initiation grant funding opportunity with the goal of broadening participation to all engineers including members from groups underrepresented in the engineering disciplines.

These grants are intended to increase the diversity of researchers in engineering disciplines to initiate research programs early in their careers, including those from underrepresented groups, engineers at minority serving institutions, and persons with disabilities.

By providing these funding opportunities, ENG intends to further broaden participation of engineering researchers who share NSF's commitment to diversity in the following ways:

- Expand the population of role models who will interact with an increasingly diverse student population, the workforce of the future
- Increase the number of engineering researchers at minority serving institutions actively and competitively
  engaged in research as independent investigators, thereby creating new research opportunities for
  students from underrepresented groups
- Fund engineering research projects that use innovative ways to attract and retain members of underrepresented groups to careers in engineering

Awards are for 24 months and are limited to a maximum of \$175,000 total costs (direct plus indirect). Principal Investigators must be U.S. citizens or lawfully admitted U.S. permanent residents at the time of application; visa-

holders are not eligible.

## Cognizant Program Officer(s):

- Omnia El-Hakim, BRIGE Coordinator, telephone: (703) 292-2149, email: oelhakim@nsf.gov
- Ted A. Conway, BRIGE Coordinator, telephone: (703) 292-7091, email: tconway@nsf.gov
- Juan Figueroa, BRIGE Coordinator IIP, telephone: (703)292-7054, email: jfiguero@nsf.gov
- Joycelyn Harrison, BRIGE Coordinator CMMI, telephone: (703) 292-7088, email: j-harris@nsf.gov
- Usha Varshney, BRIGE Coordinator ECCS, telephone: (703) 292-8339, email: uvarshne@nsf.gov
- Sally L. Wood, BRIGE Coordinator, telephone: (703) 292-7107, email: slwood@nsf.gov

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

• 47.041 --- Engineering

## **Award Information**

Anticipated Type of Award: Standard Grant

Estimated Number of Awards: 22 to 25 per year

Anticipated Funding Amount: \$4,000,000 Estimated program budget, number of awards are subject to the availability of funds.

## **Eligibility Information**

#### **Organization Limit:**

Proposals may only be submitted by the following:

- Universities and colleges: Universities and two- and four-year colleges (including community colleges) located and accredited in the U.S.
- Proposers affiliated with Minority-Serving Institutions (MSIs) including Historically Black Colleges and Universities (HBCUs), Hispanic-serving Institutions (HSIs), Tribal Colleges and Universities (TCUs), and persons with disabilities are especially encouraged to apply.
- Non-profit, non-academic organizations: independent museums, observatories, research labs, professional societies and similar organizations in the U.S. associated with educational or research activities.

#### PI Limit:

Proposers must be affiliated with an engineering department or a department closely related to engineering.

Co-investigators are not permitted, but collaborations with other scientists and/or researchers in other universities, industry, and national laboratories are encouraged.

Principal investigators must be U.S. citizens or permanent residents.

See Additional Eligibility Info section for further information.

#### Limit on Number of Proposals per Organization:

None Specified

#### Limit on Number of Proposals per PI:

One per deadline.

## **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/pubs/policydocs/grantsgovguide607.pdf)

### **B. Budgetary Information**

- Cost Sharing Requirements: Cost Sharing is not required under this solicitation.
  - · Indirect Cost (F&A) Limitations: Not Applicable
- Other Budgetary Limitations: Not Applicable

# C. Due Dates

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

February 13, 2009

## **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:** Additional reporting requirements apply. Please see the full text of this solicitation for further information.

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## I. INTRODUCTION

To address the need to enhance diversity in its programs, the Directorate for Engineering (ENG) at NSF offers research initiation grants under the program name BRIGE, Broadening Participation Research Initiation Grants in Engineering.

The intent of BRIGE awards is to promote the participation of engineers from all segments of the engineering community, including those from under-represented groups, engineers at minority serving institutions, and persons with disabilities. Our goal is to increase the number of proposals to the Directorate for Engineering from individuals who can serve as role models for the U.S. engineering workforce of the future. Another goal is to support innovative plans for recruiting and retaining a broad representation of researchers in programs supported by these grants.

## **II. PROGRAM DESCRIPTION**

Broadening Participation Research Initiation Grants in Engineering (BRIGE) awards are for beginning investigators (see Additional Eligibility Information below) to undertake activities, such as exploratory investigations, acquisition of preliminary data or

development of collaborations that will lead to formulation of competitive grant applications.

The purpose of the award is to broaden the participation of and to increase opportunities for all engineers including those from groups underrepresented in the engineering disciplines, in order to encourage individuals to become actively and competitively engaged in research as independent investigators.

A specific goal of this program is to make ENG programs more inclusive in the future. Thus, one measure of success of these programs will be the number of future proposals received by ENG from awardees of BRIGE grants and from members of underrepresented groups influenced or mentored by BRIGE awardees.

Research proposed in this program must be within the purview of the Directorate for Engineering.

# **III. AWARD INFORMATION**

ENG expects to invest \$4,000,000 in FY 2009. The duration for these awards is 24 months. They are limited to a maximum of \$175,000 in total (direct plus indirect) costs. Durations may be longer, if circumstances warrant and are justified. The number of awards is subject to the availability of funds.

# **IV. ELIGIBILITY INFORMATION**

### **Organization Limit:**

Proposals may only be submitted by the following:

- Universities and colleges: Universities and two- and four-year colleges (including community colleges) located and accredited in the U.S.
- Proposers affiliated with Minority-Serving Institutions (MSIs) including Historically Black Colleges and Universities (HBCUs), Hispanic-serving Institutions (HSIs), Tribal Colleges and Universities (TCUs), and persons with disabilities are especially encouraged to apply.
- Non-profit, non-academic organizations: independent museums, observatories, research labs, professional societies and similar organizations in the U.S. associated with educational or research activities.

## PI Limit:

Proposers must be affiliated with an engineering department or a department closely related to engineering.

Co-investigators are not permitted, but collaborations with other scientists and/or researchers in other universities, industry, and national laboratories are encouraged.

Principal investigators must be U.S. citizens or permanent residents.

See Additional Eligibility Info section for further information.

#### Limit on Number of Proposals per Organization:

None Specified

#### Limit on Number of Proposals per PI:

One per deadline.

#### Additional Eligibility Info:

You are eligible to apply under this program solicitation only if you meet all of the following criteria:

- · are a citizen or permanent resident of the United States, AND
- · hold a doctoral degree in an ENG supported discipline, AND
- present a plan that shows how the proposed activities will increase (1) the participation of engineers from underrepresented groups and (2) the numbers of such individuals that serve as role models for the scientific workforce of the future, AND
- · you meet the specific eligibility criteria for BRIGE listed below.

For a BRIGE award, you are eligible if you

- do not currently hold a post-doctoral appointment,
- are a new investigator, *i.e.*, have held an *active* full time tenure-track faculty position or equivalent research appointment for less than *three years* in a U.S. college or university eligible to receive NSF support on the date of proposal submission, AND
- have not previously served as Principal Investigator, co-Principal Investigator, or senior personnel on independent federal research grants the total of which exceeds \$50,000. Previous federal support through a doctoral dissertation improvement award, as a Fellow (post-doctoral or graduate), or through a fellowship research starter grant is not disqualifying.

pubs@nsf.gov.

# 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: <a href="http://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=gpg">http://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=gpg</a>. 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/bfa/dias/policy/docs/grantsgovguide.pdf). 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 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

Because of the special nature of BRIGE proposals, applicants are strongly encouraged to read this program solicitation in its entirety before sending inquiries to the program contacts listed in Section VIII of the solicitation.

In addition to following the general format contained in the GPG or NSF Grants.gov Application Guide, proposals submitted in response to this program solicitation must also adhere to the following special instructions.

The title on the cover page must identify the proposal as BRIGE. "BRIGE:" should precede the title of your research project in the title section of the NSF cover page.

Co-investigators are not permitted on BRIGE, but collaborations with and/or visiting scientist status in other laboratories are permitted.

Tenure or tenure-track status is not required, but the proposer must be the Principal Investigator. If the proposer is not in a tenuretrack appointment, the institution must state its contractual agreement with the proposer if the appointment period and requested grant award dates are not congruent. If the institution requires that a tenured or tenure-track faculty member serve as the responsible person for grant administration at the departmental level, and the proposer is not in that status, another individual may serve as the faculty sponsor. In that case, on the cover page in the "Names" block on the first "Co-PI/PD" line, type "Other Endorsement" above the name of the faculty sponsor.

Project Description. This narrative description, not to exceed 15 pages (including tables, figures, and other visual supplements), is the principal part of the proposal. It is a detailed statement of the work to be undertaken and will be the basis for evaluation of the intellectual merit and broader impact of the proposal. It should contain:

- A brief description of the proposer's overall research goals.
- A detailed description of the proposed activities, including any preliminary data already available or a description of data that the proposer plans to obtain.
- The relationship of the proposed activities to the proposer's projected longer term research goals.
- A discussion of how those activities will facilitate development of a subsequent research proposal.
- A specific explanation of how the award would broaden the participation of individuals from underrepresented groups in the engineering disciplines supported by ENG.

Budget (see below for limitations, and consult GPG or NSF Grants.gov Application Guide for instructions on budget preparation). All proposers should include funds in the budget for travel to the Washington, DC area for an annual two-day meeting of awardees.

 Budget Justification (not to exceed three pages). A budget justification should be attached, explaining each line item for which funds are requested. Major cost items or unusual situations should be explained.

Special Information and Supplementary Documentation: Except as indicated below, all information necessary for the review of a BRIGE proposal must be contained in the 15-page project description and the accompanying bibliography, biographical sketch, and budget justification. The following are specific exceptions and are required:

- A letter from the institution (a department chair or dean) must be supplied that specifically addresses the following points:
  - Certification that the proposer has not previously served as the PI or Co-PI on independent Federal research grants the total of which exceeds \$50,000. Thus, the proposer's name cannot appear as PI or Co-PI on the cover page of a Federal grant the total of which exceeds \$50,000 regardless of how much funding the proposer received on the grant.
    - Attestation to the fact that the proposer has served in his/her current position less than three years from the date
      of proposal submission.
    - The availability of facilities and support for the research. The letter should be scanned in and submitted in the "Supplementary Documents" section.
- Letters describing collaborative arrangements and commitments, if any, should also be scanned and submitted in the "Supplementary Documents" section.

## **Pre-Submission Checklist**

- PI should state that s/he is either a U.S. Citizen or a Permanent Resident
  - Letter of certification from department chair or dean stating
    - The proposer has not been the PI or Co-PI on and independent Federal research grant the total of which exceeds \$50,000
    - The proposer has not held his/her current position longer than three years from the date of proposal submission (not the deadline)

- The availability of facilities and support for the proposed research
- The letter should be scanned and submitted in the "Supplementary Documents" section.
- Letter describing collaborative arrangements and commitments if any should be scanned and submitted in the "Supplementary Documents" section.
  - Current and Pending Support form must be submitted even if the proposer has no current and pending support.
- Two-page bio sketch must comply with the NSF standard format
- Should follow the GPG guidelines.
- Do not submit a BRIGE proposal if you are a post-doctoral researcher.

# **B. Budgetary Information**

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

# **C. Due Dates**

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

February 13, 2009

# 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 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:

For BRIGE awards, of paramount importance are both the scientific merit of the proposed research and the extent to which the proposed activities will broaden participation of individuals from underrepresented groups in the engineering disciplines supported by ENG.

Additionally, the proposal will be judged on the potential of the research initiation activities to produce sufficient preliminary data to serve as the basis for a competitive research proposal to ENG.

## **B. Review and Selection Process**

Proposals submitted in response to this program solicitation will be reviewed by 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 <a href="http://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=aag">http://www.nsf.gov/publications/pub\_summ.jsp?ods\_key=aag</a>.

# **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.

Pls 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. Pls 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.

In addition to the standard NSF reporting requirements, two additional statements are required:

- 1. An explanation of how the award contributed to broadening participation in the scientific workforce, particularly in the engineering disciplines supported by ENG.
- 2. A description of how the results of the award will contribute to the submission of a future NSF research proposal.

# VIII. AGENCY CONTACTS

General inquiries regarding this program should be made to:

- Omnia El-Hakim, BRIGE Coordinator, telephone: (703) 292-2149, email: oelhakim@nsf.gov
- Ted A. Conway, BRIGE Coordinator, telephone: (703) 292-7091, email: tconway@nsf.gov
- Juan Figueroa, BRIGE Coordinator IIP, telephone: (703)292-7054, email: jfiguero@nsf.gov
- Joycelyn Harrison, BRIGE Coordinator CMMI, telephone: (703) 292-7088, email: j-harris@nsf.gov
- Usha Varshney, BRIGE Coordinator ECCS, telephone: (703) 292-8339, email: uvarshne@nsf.gov
- Sally L. Wood, BRIGE Coordinator, telephone: (703) 292-7107, email: slwood@nsf.gov

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; email: support@grants.gov.

## **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, MyNSF (formerly the Custom News Service) is an information-delivery system 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 or the user's Web browser each time new publications are issued that match their identified interests. MyNSF also is available on NSF's Website at http://www.nsf.gov/mynsf/.

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.

## 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.

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