Research in Disabilities Education (RDE)

Program Solicitation

NSF 07-511

Replaces Document(s): NSF 05-623



National Science Foundation

Directorate for Education & Human Resources
Division of Human Resource Development

Letter of Intent Due Date(s) (optional):

January 08, 2007

All program tracks (Optional)

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

February 12, 2007

All program tracks

REVISION NOTES

In furtherance of the President's Management Agenda, NSF has identified programs that will offer proposers the option to utilize Grants.gov to prepare and submit proposals, or will require that proposers utilize Grants.gov to prepare and submit proposals. Grants.gov provides a single Government-wide portal for finding and applying for Federal grants online.

In response to this program solicitation, proposers are required to submit full proposals via Grants.gov with the following exception:

Collaborative Proposals. All collaborative proposals submitted as separate submissions from multiple organizations must be submitted via the NSF FastLane system. See Section V.A. Proposal Preparation Instructions, for further information.

Program revisions include an extension of the maximum duration of the Demonstration, Enrichment, and Information Dissemination (RDE-DEI) awards to 18 months.

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

Synopsis of Program:

The Research in Disabilities Education (RDE) program makes resources available to increase the participation and achievement of people with disabilities in science, technology, engineering, and mathematics (STEM) education and careers. The Demonstration, Enrichment, and Information Dissemination (RDE-DEI) program track provides support to institutionalize accessible products and educational materials, enhance STEM learning experiences for students with disabilities, and disseminate information about effective products, pedagogical approaches, teaching practices, and research for broadening the participation of people with disabilities in STEM. Promising research efforts are developed under the Focused Research Initiatives (RDE-FRI) program track via awards to encourage assistive technology development, technology use in educational environments, and investigations of effective instructional methods and practices for people with disabilities in STEM. The Regional Alliances for Persons with Disabilities in STEM Education (RDE-RAD) program track provides support for comprehensive, multidisciplinary networks that increase the quality and quantity of students with disabilities completing associate, baccalaureate and graduate degrees in STEM who are well prepared for the science and engineering research, education and professional workforce.

Cognizant Program Officer(s):

- Mark Leddy, Program Director, telephone: (703) 292-4655, fax: (703) 292-9018, email: mleddy@nsf.gov
- Martha James, Assistant Program Director, telephone: (703) 292-7772, fax: (703) 292-9018, email: mjames@nsf.gov

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

47.076 --- Education and Human Resources

Award Information

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

Estimated Number of Awards: 11 to 14 awards pending the availability of funds: 6 to 7 RDE-DEI standard grants, 4 to 5 RDE-FRI standard or continuing grants, and 1-2 RDE-RAD continuing grants or Cooperative Agreements.

Anticipated Funding Amount: \$4,800,000 for new awards in all RDE tracks, pending availability of funds.

Eligibility Information

Organization Limit:

Proposals may only be submitted by the following:

- 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.
- Universities and colleges: U.S. universities and two- and four-year colleges (including community colleges)

PI Limit:

An individual PI or Co-PI can be listed on only one RDE proposal in any track in this competition.

Limit on Number of Proposals per Organization: 1

An institution or organization may be included in only one RDE proposal, either as a lead institution or as a partner organization. A currently funded RAD lead or partner institution may not be a lead or partner

institution on a second RAD proposal during the same funding period.

Limit on Number of Proposals per PI: 1

Only one RDE proposal may be submitted by a PI or Co-PI to each year's competition. A PI or Co-PI on a currently funded RAD award may not be a PI or Co-PI on a second RAD proposal during the same funding period.

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- Letters of Intent: Submission of Letters of Intent is optional. Please see the full text of this solicitation for further information.
- Full Proposal Preparation Instructions: Full proposals must be submitted via Grants.gov:
 - NSF Grants.gov Application Guide: A Guide for Preparation and Submission of NSF Applications via Grants. gov Guidelines applies. (Note: 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 website, 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.

B. Budgetary Information

- Cost Sharing Requirements: Cost Sharing is not required by NSF.
- Indirect Cost (F&A) Limitations: Not applicable.
- Other Budgetary Limitations: Other budgetary limitations apply. Please see the full text of this solicitation for further information.

C. Due Dates

• Letter of Intent Due Date(s) (optional):

January 08, 2007

All program tracks (Optional)

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

February 12, 2007

All program tracks

Proposal Review Information Criteria

Merit Review Criteria: National Science Board approved criteria apply.

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.

TABLE OF CONTENTS

Summary of Program Requirements

- I. Introduction
- **II. Program Description**
- **III. Award Information**
- IV. Eligibility Information
- V. Proposal Preparation and Submission Instructions
 - A. Proposal Preparation Instructions
 - B. Budgetary Information
 - C. Due Dates
 - D. Grants.gov Requirements
- VI. NSF Proposal Processing and Review Procedures
 - A. NSF Merit Review Criteria
 - B. Review and Selection Process
- VII. Award Administration Information
 - A. Notification of the Award
 - **B.** Award Conditions
 - C. Reporting Requirements
- VIII. Agency Contacts
- IX. Other Information

I. INTRODUCTION

One of National Science Foundation's (NSF) key strategic goals is to "cultivate a world class, broadly inclusive science and engineering workforce, and expand the scientific literacy of all citizens." The programs of the Division of Human Resource Development (HRD) contribute to this goal by supporting activities that increase the participation of communities traditionally underrepresented in science, technology, engineering, and mathematics (STEM). To meet the challenges presented by the nation's increasing needs in STEM, the Research in Disabilities Education program (RDE) supports efforts to increase the success of people with disabilities in STEM education and careers by:

- Encouraging, through the direct involvement of persons with disabilities, improvement in academic and professional STEM climates;
- Developing the awareness and recognition of the needs and capabilities of persons with disabilities in STEM;
- Promoting the accessibility and appropriateness of STEM instructional materials, media, and educational technologies; and
- Increasing the availability of student and professional enrichment resources, including mentoring activities.

This solicitation requests proposals for new projects in each of the 3 RDE program tracks: (1) Demonstration, Enrichment, and Information Dissemination (RDE-DEI); (2) Focused Research Initiatives (RDE-FRI); and (3) Regional Alliances for Persons with Disabilities in STEM Education (RDE-RAD).

- 1. Demonstration, Enrichment, and Information Dissemination (RDE-DEI). The goals of the RDE-DEI program track are to further institutionalize products and other educational materials that promote accessibility to STEM disciplines and career experiences for students with disabilities; enhance the STEM learning experience for students with disabilities; and disseminate information about model programs, exceptional products, successful research methods, effective pedagogical approaches, teaching practices, and research for broadening the participation of people with disabilities in STEM. Proposals to the RDE-DEI track should include metrics for examining outcomes of the DEI project, careful description of dissemination networks, and provide information regarding the potential for innovation and promise for future research efforts as a result of this project. The proposal should address strategies and timelines for achievement of the project goals given a short time for development, testing and dissemination (up to 18 months) and given a limited budget (up to \$100,000).
- 2. Focused Research Initiatives (RDE-FRI). The goals of the RDE-FRI program are to encourage research and development of specific but utilitarian assistive technologies that will help persons with disabilities pursue careers in STEM; build tools for students with disabilities that can quickly be developed and effectively deployed in the educational environment; add value to the education of persons with disabilities in STEM by implementing the use of technologies in educational environments; and investigate effective instructional methods and practices for people with disabilities in STEM. Proposals to the RDE-FRI track are evaluated based on their potential for solving specific problems limiting people with disabilities in STEM education, research and professional practice. Proposals should include detailed timelines for achieving project goals and metrics for examining outcomes of FRI activities. The experimental design of the proposals should be explicit and address the measurable impact of the project on people with disabilities in STEM. FRI proposals must address the immediate educational impact of applying the research outcomes given the relative time for project completion (up to 3 years) and associated budget (up to \$300,000).
- 3. Regional Alliances for Persons with Disabilities in STEM Education (RDE-RAD). The RDE-RAD program track provides support for comprehensive, multidisciplinary networks that increase the quality and quantity of students with disabilities completing associate, baccalaureate and graduate degrees in STEM who are well prepared for the science and engineering research, education and professional workforce. RADs are conceived as networks established by universities and colleges with linkages throughout academe and in partnership with industry, government, and national research laboratories. Academic partnerships should include 2-year and 4-year institutions as well as pre-college educational entities. The goals of the RDE-RAD include increasing the quantity and quality of students with disabilities receiving associate and baccalaureate degrees in STEM disciplines; identifying early potential in STEM students with disabilities, and then nurturing such interest with appropriate activities, relevant content, and advisement for careers or advanced study; and/or supporting and sustaining the intellectual endeavors of STEM professionals who have acquired disabilities later in their careers. To achieve these goals, RADs provide comprehensive educational and research experiences, quality support services for recruitment and retention, and career-development activities for students, counselors, and faculty alike. RADs represent a substantial investment of time (up to 5 years) and funding (up to \$3,000,000), and should create sustainable institutional systems for continuing work when federal funding is expended.

Proposals to the RDE-RAD track are evaluated on their potential for investigating, incorporating and disseminating effective practices in disabilities education and research (including the outcomes of DEI and FRI projects); changing faculty and employer attitudes and institutional cultures by making curricula and employment programs more inclusive and accessible; and developing student self-advocacy, STEM literacy and workforce preparation. Proposals must include appropriate formative and summative evaluation and research activities to assess the effectiveness of strategies and interventions that improve participation of students with disabilities in STEM education, that lead to degree completion, and that lead to successful employment in STEM. Examples of RAD activities that are appropriate in this category include, but are not limited to:

- Examination of effective methods for teaching science or mathematics so that students with disabilities perform competitively with other students on their education level;
- Evaluation and implementation of adaptable science or mathematics curricula appropriate for all students, including those with disabilities, conducted collaboratively with publishers or education networks to ensure rapid dissemination of products;
- Development or adaptation of educational technology or media to ensure independent use by students with disabilities in STEM, including evaluation of the effects of such technology or media on student success;
- Efforts to overcome stereotyping of people with disabilities among parents, teachers, peers, and coworkers and the impact of improvements on STEM education for students with disabilities;
- Provision of STEM enrichment activities for people with disabilities and assessment of the impact

- the enrichment activities have on STEM education and career advancement;
- Creation of systems for STEM professionals, researchers and scientists with disabilities to serve as mentors to improve the interest, performance, and retention of students with disabilities in STEM education; and
- Establishment and strengthening of programs that succeed in graduating students with disabilities
 with high school degrees leading to undergraduate training in STEM and graduating students with
 disabilities with baccalaureate degrees leading directly to graduate training or to employment in
 STEM fields.

Additional program information specific to the RDE-RAD program track includes:

- International cooperation is encouraged, however, the lead institution must be a U.S. college or university. Accordingly, the predominant beneficiaries should be U.S. students and professionals with disabilities participating in STEM fields.
- One institution is expected to submit an RDE-RAD proposal on behalf of the entire RAD. Collaborative proposals are not permitted and will be returned without review. A rationale should be provided if all or part of the project will be performed off-campus or away from the primary institution.
- The definition of 'region' in the proposed RAD is at the proposer's discretion. It does not denote any
 particular geographic uniqueness and may include intra-state, multi-state, national or international
 cooperation between institutions, industry, associations, non-profit organizations and societies, and
 government agencies, as appropriate to the proposed scope of work.

General Suggestions for all RDE Proposals

- Proposals from minority-serving institutions, including Historically Black Colleges and Universities, Hispanic-Serving Institutions, and Tribal Colleges and Universities are especially encouraged.
- It is strongly recommended that the budget and timeline estimates submitted be reasonable for the scale and scope of work, as proposed. Proposals that significantly differ from the recommended duration or amount of funding stipulated in this solicitation may be returned without review.
- The proposal should describe clearly the role of the all partner organizations, and should specify the managerial arrangements contemplated. Partner institutions may be listed as subawards, as appropriate.

Assistive Technologies. The RDE program supports efforts to search for new and innovative technologies to facilitate student success in STEM activities. It is expected that appropriate assistive technology (AT) will be integrated into the learning activities of students with disabilities who are involved in the projects. Proposals should address evaluation of the effectiveness of the AT used in the project with recommendations for further improvement and application of universal design principles.

Project Outcomes and Evaluation. All proposals submitted to the RDE program should identify the specific project outcomes to be targeted for each year of the proposed award. The effort required for developing a research and evaluation plan and collecting, measuring, and reporting appropriate outcome data should be detailed in the proposal and supported in the proposed budget. The following are illustrative of outputs and outcome measures to be reported: number of total participants, including demographics; number of students with disabilities enrolled in STEM courses (majors and non-majors); accommodations or assistive-technology used and their level of success; number of students with disabilities obtaining degrees in a STEM discipline; the number of students entering graduate school or careers in STEM fields; and comparable data for control subject cohorts not directly supported by the project. Investigators are encouraged to provide detailed descriptions of the quantitative metrics for measuring outcomes, descriptions of subject data collection procedures, and timelines for data collection and outcome measurement. Similar outcome measures must be reported for participants in faculty-enhancement activities. Complete bibliographic citations for journal publications, conference presentations (date, location, number of attendees), media coverage, workshops, software developed, survey results, uniform resource locators (URLs) and other products derived from RDE support are expected in the project's annual progress reports. Addressing relevant educational research questions and the publication of such results in peer-reviewed journals (in mainstream as well as disabilities-related areas) are especially encouraged.

RDE Program Evaluation. Periodically, NSF evaluates the impact of the entire RDE program. Awardees will be required to participate in a program-level evaluation by which NSF can assess quantitative gains in relevant measures for students with disabilities in STEM. Individual projects are expected to cooperate with third-party program evaluation and respond to inquiries, interviews and other approaches for collecting evaluation data across individual grants.

Use of Human Subjects. NSF adheres to Subpart A (The Common Rule for the Protection of Human

Subjects) of 45 CFR Part 690: Federal Policy for the Protection of Human Subjects. This document defines a human subject as: "A living individual about whom an investigator (whether professional or student) conducting research obtains 1) data through intervention or interaction with the individual, or 2) identifiable private information. Intervention includes both physical procedures by which data are gathered (e.g., venipuncture) and the manipulations of the subject or the subject's environment that are performed for research purposes. Interaction includes communication or interpersonal contact between investigator and subject. Private information includes information about behavior that occurs in a context in which an individual can reasonably expect that no observation or recording is taking place, and information which has been provided for specific purposes by an individual and which the individual can reasonably expect will not be made public (for example, a medical record). Private information must be individually identifiable (i.e., the identity of the subject is or may readily be ascertained by the investigator or associated with the information) in order for obtaining the information to constitute research involving human subjects." The NSF's Office of the Inspector General does monitor and audit such declarations, and RDE panelists will be asked to check for appropriate institutional review board (IRB) certification on all proposals. The certification may not be finalized at the time of proposal submission (and ultimately does not apply to declined submissions) but should be dated and recorded as pending, as applicable, and included along with all full proposal submissions. Principal Investigators who are unsure whether their project applies as using human subjects according to their institutional guidelines should check with their IRB or Sponsored Research Office (SRO).

III. AWARD INFORMATION

RDE-DEI awards will be standard grants up to a total of \$100,000 for up to 18 months duration. 6 to 7 such awards are anticipated in FY 2007. RDE-FRI awards will be standard or continuing grants up to a total \$300,000 for up to 3 years duration. 4 to 5 such awards are anticipated in FY 2007. RDE-RAD awards are continuing grants or Cooperative Agreements up to a total of \$3,000,000 for up to 5 years duration. 1 to 2 such awards are expected in FY 2007. Estimated program budget, number of awards, and average award size and duration are subject to the availability of program funds. Awards will not necessarily be made in all program categories detailed in this solicitation for any given year. Funds should be budgeted for the principal investigator and, if appropriate, a second senior personnel to attend a grantee meeting in the Washington, D. C. area, each award year.

IV. ELIGIBILITY INFORMATION

Organization Limit:

Proposals may only be submitted by the following:

- 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.
- Universities and colleges: U.S. universities and two- and four-year colleges (including community colleges)

PI Limit:

An individual PI or Co-PI can be listed on only one RDE proposal in any track in this competition.

Limit on Number of Proposals per Organization: 1

An institution or organization may be included in only one RDE proposal, either as a lead institution or as a partner organization. A currently funded RAD lead or partner institution may not be a lead or partner institution on a second RAD proposal during the same funding period.

Limit on Number of Proposals per PI: 1

Only one RDE proposal may be submitted by a PI or Co-PI to each year's competition. A PI or Co-PI on a currently funded RAD award may not be a PI or Co-PI on a second RAD proposal during the same funding period.

Additional Eligibility Info:

The RDE program does not offer individual stipends, scholarships, or living expenses in direct support of individuals with disabilities. However, in some circumstances, individuals may qualify to apply for sub-grants from RDE projects as identified in the proposal and sanctioned by the PI and his or her institutional sponsor. Additionally, funding is offered for special assistance or equipment to enable people with disabilities to work on NSF-supported projects through Facilitation Awards for Scientists and Engineers with Disabilities (FASED). Consult the guidelines presented in NSF 02-115 and refer to the Grant Proposal Guide Chapter II, Section D.2 for instructions regarding preparing FASED proposals.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Letters of Intent (optional):

Letters of intent are encouraged for all program tracks. Letters of intent are submitted electronically via FastLane. Letters of intent are expected to be brief and should not be developed as preliminary proposals. They should include the names and affiliations of the key investigators with a brief (50- to 100-word) summary of the problem to be addressed.

Letter of Intent Preparation Instructions:

When submitting a Letter of Intent through FastLane in response to this Program Solicitation please note the conditions outlined below:

- SPO Submission is Not Required when submitting Letters of Intent
- A Minimum of 0 and Maximum of 4 Other Senior Project Personnel are allowed
- A Minimum of 0 and Maximum of 4 Other Participating Organizations are allowed
- Submission of multiple Letters of Intent are Not allowed

Full Proposal Preparation Instructions: Proposers are required to submit proposals in response to this Program Solicitation 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 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 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.
- Proposals submitted in response to this program solicitation that meet the identified exception 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.

B. Budgetary Information

Cost Sharing: Cost sharing is not required by NSF in proposals submitted to the National Science Foundation.

Indirect Cost (F&A) Limitations: Not applicable.

Other Budgetary Limitations:

RDE-DEI awards are standard grants of up to a total of \$100,000 for up to 18 months duration.

RDE-FRI awards are standard or continuing grants of up to a total \$300,000 for up to 3 years duration.

RDE-RAD awards are continuing grants or cooperative agreements of up to a total of \$3,000,000 for up to 5 years duration.

C. Due Dates

• Letter of Intent Due Date(s) (optional):

January 08, 2007

All program tracks (Optional)

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

February 12, 2007

All program tracks

D. Grants.gov Requirements

• 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 and, if they meet NSF proposal preparation requirements, for review. 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 with the proposer.

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 and original 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?

NSF staff 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.

B. Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by Adhoc Review 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 date of receipt. 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 Federal Demonstration Partnership (FDP) 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/general_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 *Grant Policy Manual* (GPM) Chapter II, available electronically on the NSF Website at http://www.nsf.gov/publications/pub_summ.jsp?ods_key=gpm.

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.

See subsections on Project Evaluation and Outcome Measures in Section II. Program Description.

VIII. AGENCY CONTACTS

General inquiries regarding this program should be made to:

- Mark Leddy, Program Director, telephone: (703) 292-4655, fax: (703) 292-9018, email: mleddy@nsf.gov
- Martha James, Assistant Program Director, telephone: (703) 292-7772, fax: (703) 292-9018, email: mjames@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; e-mail: support@grants.gov.
- Toni Edquist, Program Assistant, HRD, Directorate for Education & Human Resources, Division of Human Resource Development, Room 815 N. Telephone: (703) 292-4649, fax: (703) 292-9018, email: tedquist@nsf.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.

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



The National Science Foundation, 4201 Wilson Boulevard, Arlington, Virginia 22230, USA Tel: (703) 292-5111, FIRS: (800) 877-8339 | TDD: (800) 281-8749

Last Updated: 06/09/05 Text Only