

# Professional Opportunities for Women in Research and Education (POWRE)

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## *Program Announcement*

Proposal Receipt Deadline: *December 9 in 1998 and  
in subsequent years until the announcement is  
canceled or superceded*



**NATIONAL SCIENCE FOUNDATION**

# National Science Foundation

## Program Announcement:

### Professional Opportunities for Women in Research and Education (POWRE)

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#### INTRODUCTION

The National Science Foundation's mandate to ensure the vitality of the nation's scientific and engineering enterprise requires a focus on the quality, distribution, and effectiveness of the human-resource base in science and engineering, including full utilization of all potentially interested and qualified citizens. Because women are underrepresented in the science and engineering workforce, the Foundation supports efforts to facilitate their full participation in the science and engineering mainstream. Of special interest in this program is the prominent representation of women in the research and education community.

The Professional Opportunities for Women in Research and Education (POWRE) program supports activities that promote the development of scholarly and institutional leaders in research and education. POWRE is a Foundation-wide program designed to increase the prominence of women in science and engineering and to enhance their professional advancement by providing them with funding opportunities that are not ordinarily available through regular research and education grant programs. POWRE awards are not intended to substitute for support of regular research and education projects, or for other NSF funding, such as the *Faculty Early Career Development* (CAREER) awards (NSF 98-103 or current issuance).

#### OBJECTIVE

The objective of the POWRE program is to increase the prominence, visibility, and influence of women in all fields of academic science and engineering supported by NSF, *especially in contexts where women are underrepresented*. By providing opportunities for career advancement, professional growth, and increased prominence of women in science and engineering, more women will be encouraged to pursue careers and achieve leadership positions in science and engineering, and women scientists and engineers will obtain greater visibility and influence in academic institutions and in industry. The Foundation is particularly interested in increasing the participation of minority women and women with disabilities. Members of these groups are especially encouraged to apply.

#### PROGRAM DESCRIPTION

The POWRE program allows flexibility in the choice of activities designed to provide academic and professional opportunities in science and engineering. POWRE activities are expected to be substantively different from those that a Principal Investigator would consider developing for a regular proposal submitted to a disciplinary program or to other NSF competitions.

POWRE awards are designed to provide a one-time input of funds at a critical stage in the Principal Investigator's career, a means by which she can take advantage of an opportunity that will contribute to a significant, identifiable advance in her career path. POWRE awards are not intended to provide funds to establish a laboratory. New investigators in academia are encouraged to consider the CAREER program and the regular research and education disciplinary programs as their primary source of initial funding.

The applicant should provide a "POWRE Relevance Statement" that describes her career goals and plans, and that establishes the relevance of the POWRE award to her career path. This concise statement should explain how the POWRE award will be important for the advancement of her career at this time. The standard NSF programs are expected to remain the primary source of research and education support for women scientists and engineers. Therefore, the statement should also explain why the request is being submitted as a POWRE proposal and not as a regular research or education proposal.

Activities that have been supported through the POWRE program in past competitions have enabled women to take advantage of diverse professional opportunities, including:

- access to and utilization of new or special facilities, skills, or methodologies;
- exploratory work to determine feasibility of a new line of research inquiry or educational activity;
- an international collaboration;
- an innovative idea for integrating research and education;

- focused support at a critical career stage (e.g., after major administrative demands, after a career interruption to accommodate family responsibilities or relocation requirements).

Consideration will be given to international activities to forge linkages between foreign and U.S. scientists and engineers, to provide access to unique research equipment and facilities, to plan joint seminars and workshops, or to address issues that can benefit from international comparisons. International experiences and collaborations are encouraged where the international experience is well justified and necessary to achieve the aims of the project. POWRE applicants wishing to pursue international activities should discuss their plans with the contact person for International Programs, listed later in this document, and refer to *International Opportunities for Scientists and Engineers* (NSF 96-14, revised 6/9/97, or current issuance) during proposal preparation.

Potential proposers should consult the NSF Web site (<http://www.nsf.gov>) under "Crosscutting Programs" to access POWRE information specific to each NSF directorate or office. Specific information may also be found directly through the home page of the appropriate NSF organizational unit. Alternatively, a potential proposer may contact the appropriate member of the POWRE Coordinating Committee listed later in this announcement.

#### ***No More POWRE Supplements***

In previous competitions, a Principal Investigator with an existing NSF grant could request a POWRE supplement to that grant. The POWRE program will no longer consider such supplement requests. Principal Investigators interested in supplemental funding should contact the cognizant program officer for the existing award to determine whether or not program funds might be available in the disciplinary program to support a supplemental funding request. POWRE resources will not be used to fund supplements. However, current NSF Principal Investigators are eligible to submit POWRE proposals.

#### **ELIGIBILITY**

The Principal Investigator of a POWRE proposal must be a woman scientist or engineer who is a U.S. citizen, national, or permanent resident at the time the proposal is submitted. Except under very unusual circumstances, it is expected that the Principal Investigator will hold a doctorate-level degree in an appropriate field. The subject of the proposed activity must be in an area of science or engineering research or education that is supported by NSF (see the *Guide to Programs*, NSF 97-150 or current issuance).

A woman is encouraged to apply to the POWRE program if she:

- holds a faculty or research-related position at a U.S. degree-granting academic institution and is proposing a POWRE activity to be performed at her home institution and/or at a host institution in the U.S. or abroad (including another college or university, a non-profit institution, an industrial firm, or a scientific or engineering professional organization);
- holds a position at a non-academic U.S. institution (either industrial or non-profit) and is proposing a POWRE activity that will take place at a U.S. academic institution (host institution); or
- does not currently hold an industrial or academic position, and/or has had an interruption in her professional career, and is proposing a POWRE activity that will take place at a U.S. academic institution (host institution).

A POWRE proposal must be submitted by a U.S. academic institution. All POWRE awards will be made to U.S. academic institutions. Only single-investigator proposals are appropriate. POWRE proposals that are submitted with co-investigators will be returned without review.

#### **AWARD DURATION AND SIZE**

The duration of a POWRE award is expected to be from 12 to 18 months, and the research or education activity should be proposed with clear focus and realistic schedule to permit the activity to be completed within the requested project duration. The starting date can be delayed when necessary, e.g., to coordinate field activities at remote locations. *The POWRE program does not support long-term research or education activities.*

The total award amount requested in a POWRE proposal, including direct and indirect costs, is expected to be no more than \$75,000. Funding in excess of \$75,000 may be granted only when the Principal Investigator proposes an activity in residence at a host institution (defined as an institution with which the proposer has no current affiliation). For such a case, a detailed justification should be provided in the proposal to explain the special circumstances that warrant the higher funding request.

NSF funding for the POWRE program in FY 1998 was budgeted at approximately \$12 million. NSF expects to invest a similar amount in FY 1999 contingent on availability of funds.

#### **PROPOSAL REVIEW**

POWRE proposals will be reviewed by the relevant NSF disciplinary programs in accordance with the Foundation's merit-review procedures. The merit criteria in use are those adopted by the National Science Board in 1997, and the criteria are included in this announcement as Appendix 1.

In addition, the following POWRE-specific review criteria will be used to evaluate POWRE proposals:

- Applicant's career objectives and relevance of the proposed activities to these objectives (the POWRE Relevance Statement).
- Impact of a POWRE award on the applicant's academic advancement or leadership roles.
- The match between the proposed activity and the research or educational environment and facilities at the institutional site for the POWRE activity.

Final funding decisions will be made by the National Science Foundation.

## PROPOSAL PREPARATION

POWRE proposals must conform to NSF proposal-submission requirements. The NSF *Grant Proposal Guide* (*GPG*, NSF 99-2 or current issuance) provides a detailed description of proposal preparation, review criteria, and proposal processing. All proposals should be prepared in accordance with the *GPG*, except as modified in this announcement. (See instructions below.) The forms specified below are available in the *GPG* and in the *Proposal Forms Kit*, which is available on the Web at <http://www.nsf.gov/cgi-bin/getpub?nsf993>. They can also be accessed from the POWRE home page.

Proposals may be prepared for paper-copy submission (with the cover sheet and project summary submitted through FastLane), but applicants are strongly encouraged to fully prepare their proposals for electronic submission using the FastLane system. Information about FastLane submission is available on the NSF Web site at <https://www.fastlane.nsf.gov>. Instructions for preparing the FastLane cover sheet and project summary for paper-copy submission are included in this announcement as Appendix 2. For further information about FastLane, contact FastLane user-support services (tel.: 703-306-1142; e-mail: [fastlane@nsf.gov](mailto:fastlane@nsf.gov)). See the "Proposal Submission" section for FastLane requirements for paper-copy submissions.

A proposal must include the following items (letters refer to proposal sections as in the *GPG*):

- Information about Principal Investigator (NSF Form 1225). This form should be attached to the cover sheet of the original signed copy.
- Cover Sheet (NSF Form 1207: page 1, all copies; pages 1 and 2, original copy only). The cover sheet (along with the project summary) must be submitted electronically through FastLane (either in a full FastLane proposal or as a FastLane cover-and-summary submission). In the block "Program Announcement/Solicitation No./Closing Date," enter "NSF 98-160." In the block "For

Consideration by NSF Organizational Unit(s)," select (from the pull-down list) the NSF directorate, division, or program most closely associated with the proposed activity (see *GPG* Appendix A). The title should be descriptive of the planned activities and should begin with "POWRE: ." No co-investigator can be listed.

- A. Project Summary (see *GPG*, Section II.D.2), not more than one page in length. The project summary (along with the cover sheet) must be submitted electronically through FastLane (either in a full FastLane proposal or as a FastLane cover-and-summary submission). Include a summary of the proposed activity's appropriateness for POWRE.
- B. Table of Contents (NSF Form 1359) (see *GPG*, Section II.D.3).
- C. Project Description and Results from Prior NSF Support: This section consists of (1) the POWRE Relevance Statement, (2) a description of the planned POWRE activities, (3) a description of the reasons for selecting the host institution (if applicable), and (4) a description of results from prior NSF support, if applicable. Parts (1), (2), (3) and (4) must not exceed a total of 15 pages, including any graphical or tabular materials.

The POWRE Relevance Statement is an integral part of the proposal, and must begin on the first page of the project description. This statement should describe the applicant's career goals and plans, establish the relevance of the POWRE award to her career path, and concisely explain those circumstances that justify why the POWRE award will be important for the advancement of her career at this time. Since the standard programs are NSF's primary source of research and education support for women investigators, the Relevance Statement should also explain why the request is being submitted as a POWRE proposal and not as a regular research or education proposal.

The statement about the selection of the host institution (if applicable) is limited to one page. In it the applicant should describe her reasons for selecting the institution, including the availability of professional colleagues, facilities and/or equipment.

- D. References Cited (see *GPG*, Section II.D.5).
- E. Biographical Sketch (see *GPG*, Section II.D.6).

- F. Budget (NSF Form 1030) (cumulative and annual budgets, including subaward budgets, if any, and up to three pages of budget justification) (see *GPG*, Section II.D.7). Funds may be requested to defray salary (in most cases based on home-institution salary); travel; relocation costs, if applicable (normally not to exceed \$3,000); and research support. Funds may be requested for salaries and wages for the Principal Investigator, visiting colleagues, postdoctoral associates, research assistants or support personnel, but not for faculty collaborators from the home or host institution. Institutionally negotiated indirect-cost rates as normally calculated apply to POWRE awards; the \$75,000 maximum includes both direct and indirect costs.

NSF encourages organizations responding to this announcement to contribute to the cost of the project supported by NSF. The amount of cost-sharing should be indicated on line M of the Summary Proposal Budget (NSF Form 1030) and explained in the budget justification.

- G. Current and Pending Support (NSF Form 1239).
- H. Facilities, Equipment, and Other Resources (NSF Form 1363).
- I. Special Information and Supplementary Documentation (see *GPG*, Section II.D.10): Letters documenting collaborations, arrangements, and commitments may be included if appropriate. Applicants proposing an activity away from the home institution are required to submit a letter of support from the host organization describing the research and/or educational environment and facilities that will be made available. Only letters that describe the planned collaboration, arrangements, and commitments will be accepted. Letters of reference or recommendation should not be included in the proposal, and such documents will not be sent to reviewers. For full FastLane proposal submissions, supplementary documents can be scanned into the back section of the .PDF file containing the project description, but a paper copy of each must be sent in with signed cover sheets by the deadline given below.

No other attachments or appendix material will be permitted. Proposals that include appendices or other material, except material permitted in the Special Information and Supplementary Documentation section, will be returned without review.

## PROPOSAL SUBMISSION

**Applicants are required to prepare and submit the cover sheet and the project summary using the NSF FastLane system.** This will facilitate tracking.

Instructions for submitting the cover sheet and project summary through FastLane are included in this announcement as Appendix 2. Proposers are strongly encouraged to submit full proposals via FastLane, but this is not required. If paper copies are submitted, the cover sheet (showing the FastLane-generated proposal number) and the project summary must be attached to each copy.

For paper-copy submission, 15 copies of each proposal, including one copy with original signatures, should be sent to:

National Science Foundation PPU  
Announcement No: NSF 98-160, POWRE  
4201 Wilson Blvd., Room P60  
Arlington, VA 22230

For proposals submitted electronically, the signed proposal cover sheet (NSF Form 1207) and paper copies of any supplemental documentation should be forwarded to the following address and received by NSF within five working days following proposal submission.

National Science Foundation  
DIS-FastLane Cover Sheet  
4201 Wilson Boulevard  
Arlington, VA 22230

A proposal may not be processed until the complete proposal (including signed cover sheet) has been received by NSF.

## SUBMISSION DEADLINE

Paper-copy proposals must be received by NSF no later than 5:00 p.m. Eastern Time on December 9 in 1998 and in subsequent years. Paper-copy proposals received by NSF after 5:00 p.m. Eastern Time on December 9 will be returned without review.

FastLane electronic submission must be completed no later than 5:00 p.m. (local time) on December 9 in 1998 and in subsequent years. Electronic submissions completed after 5:00 p.m. (local time) on December 9 will not be reviewed. The signed cover sheet and any supplemental documentation must be received by NSF within five working days following proposal submission.

## GRANT ADMINISTRATION

Grants awarded as a result of this announcement will be administered in accordance with the terms and conditions of NSF GC-1, "Grant General Conditions," or FDP-III, "Federal Demonstration Partnership (FDP) General Terms and Conditions," depending on the grantee institution. More comprehensive information is contained in the NSF *Grant Policy Manual* (NSF 95-26), available on the NSF Web site at <http://www.nsf.gov/bfa/cpo/gpm95/start.htm>.

Upon completion of the project, a Final Project Report is required (see *GPG*, Section VII.G). In addition to providing information for NSF staff review and monitoring of the career-development progress of individual awardees, this information will be used in program evaluation and assessment. Supplementary information for this purpose may be requested from time to time.

### **Additional Information**

Information on past and current POWRE competitions can be found on the POWRE home page, located on the NSF Web site (<http://www.nsf.gov>) under the title "Crosscutting Programs." Specific questions about the POWRE program may be addressed to the POWRE Coordinating Committee Chair, Priscilla Nelson (703-306-1361, [pnelson@nsf.gov](mailto:pnelson@nsf.gov)) or to the members of the NSF POWRE Coordinating Committee, listed below with their directorate/office affiliations:

#### ***BIOLOGICAL SCIENCES (BIO)***

Eve Barak, 703-306-1442, [ebarak@nsf.gov](mailto:ebarak@nsf.gov)  
Fred Stollnitz, 703-306-1413, [fstollni@nsf.gov](mailto:fstollni@nsf.gov)

#### ***COMPUTER AND INFORMATION SCIENCE AND ENGINEERING (CISE)***

Dragana Brzakovic, 703-306-1980, [dbrzakov@nsf.gov](mailto:dbrzakov@nsf.gov)

#### ***EDUCATION AND HUMAN RESOURCES (EHR)***

Margrete Klein, 703-306-1649, [mklein@nsf.gov](mailto:mklein@nsf.gov)

#### ***ENGINEERING (ENG)***

Janet Rutledge, 703-306-1384, [jrutledg@nsf.gov](mailto:jrutledg@nsf.gov)

#### ***GEOSCIENCES (GEO)***

Michael Mayhew, 703-306-1557, [mmayhew@nsf.gov](mailto:mmayhew@nsf.gov)

#### ***MATHEMATICAL AND PHYSICAL SCIENCES (MPS)***

Denise Caldwell, 703-306-1807, [dcaldwel@nsf.gov](mailto:dcaldwel@nsf.gov)

#### ***SOCIAL, BEHAVIORAL AND ECONOMIC SCIENCES (SBE)***

*SBE Research:* Bonney Sheahan, 703-306-1733, [bsheahan@nsf.gov](mailto:bsheahan@nsf.gov)

*International Programs:* Jeanne Hudson, 703-306-1702, [jhudson@nsf.gov](mailto:jhudson@nsf.gov)

Alternatively, program-related questions may be directed to the NSF program officer who works in the specific discipline. A directory of Foundation programs providing support for scientific and engineering research and education may be found in *GPG* Appendix A, and program descriptions in the *NSF Guide to Programs* (NSF 97-150 or

current issuance). As warranted, NSF will assemble a listing of Frequently Asked Questions (FAQ) relating to this announcement, and make them available on the POWRE Web page.

Both the *GPG* and the *Guide to Programs* are available in the research offices of most institutions, or without charge from the NSF Publication Clearinghouse, P.O. Box 218, Jessup, MD 20794-0218 (tel.: 301-947-2722). Publications also are available through the NSF Web site (<http://www.nsf.gov>), and may be ordered by e-mail to [pubs@nsf.gov](mailto:pubs@nsf.gov). In your request, include the NSF publication number and title, your name, and a complete postal address.

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### **APPENDIX 1: Merit Review Criteria**

The National Science Board approved revised criteria for evaluating proposals submitted to NSF at its meeting on March 28, 1997 (NSB 97-72). The revised criteria are designed to be useful and relevant across NSF's many different programs; however, NSF will continue to employ special criteria as required to highlight the specific objectives of certain programs and activities.

The revised merit review criteria are listed below. Following each criterion are potential considerations that the reviewer may employ in the evaluation. These are suggestions and not all will apply to any given proposal. Each reviewer will address only those that are relevant to the proposal and for which he/she is qualified to make judgments.

#### ***What is the intellectual merit and quality of the proposed activity?***

How important is the proposed activity to advancing knowledge and understanding within its own field and 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 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?

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## **APPENDIX 2: Instructions for FastLane Cover-and-Summary Submission for POWRE Proposals**

If you are submitting your POWRE proposal using paper copies rather than electronically, you are required to submit the proposal cover sheet and the project summary to NSF using FastLane. To access FastLane, go to the NSF Web site at <http://www.nsf.gov>, then select "FastLane," or go directly to FastLane (<https://www.fastlane.nsf.gov>).

### ***Instructions for the Principal Investigator (PI):***

Contact your institution's Sponsored Research Office (SRO) for a PIN number to gain access to the FastLane "Proposal Preparation" module. If you have not submitted a proposal to NSF in the past, you must contact your SRO to be added to the NSF Principal Investigator (PI) database. Please do this as soon as you decide to prepare a POWRE proposal.

As early as possible, enter your cover-sheet and project-summary information using the FastLane "Proposal Preparation" module. In the field labeled "Program Announcement," type in "NSF 98-160" exactly as shown, with no additional spaces or characters.

Click on the "Allow SRO Access" button. Allow time for

your SRO to approve, copy and mail the proposal to meet the deadline. Contact your SRO to inform them of the FastLane "temporary" proposal ID.

Print the cover sheet and project summary and insert them into the printed copy of the proposal.

### ***Instructions for the Sponsored Research Office:***

Print the second page of the cover sheet in time to obtain the required institutional signatures.

Before assembling the proposal for copying, submit the cover sheet to NSF via Fastlane using the "Submit Proposal" function within the "Institutional Management of FastLane" module. This will generate the official NSF proposal number.

Print a copy of the cover sheet from FastLane; it will have the proposal number on it. Substitute the first page of the cover sheet for the one produced by the PI.

Make copies of the proposal and submit to NSF according to the usual procedures for a paper proposal. For FY 1999, the paper copies of the proposal MUST be received at NSF by 5:00 p.m. Eastern Time on December 9, 1998, in order to be eligible.

Direct questions concerning FastLane or problems utilizing FastLane to <[fastlane@nsf.gov](mailto:fastlane@nsf.gov)>.

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## **OTHER INFORMATION**

The National Science Foundation (NSF) funds research and education in most fields of science and engineering. Grantees are wholly responsible for conducting their project activities and preparing the results for publication. Thus, the Foundation does not assume responsibility for such findings or their interpretation.

NSF welcomes proposals from all qualified scientists, engineers and educators. The Foundation strongly encourages women, minorities, and persons with disabilities to compete fully in its programs. In accordance with federal statutes, regulations, and NSF policies, no person on grounds of race, color, age, sex, national origin, or disability shall be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving financial assistance from NSF. (Some programs may have special requirements that limit eligibility.)

Facilitation Awards for Scientists and Engineers with Disabilities (FASSED) provide funding for special assistance or equipment to enable persons with disabilities (investigators and other staff, including student research assistants) to work on NSF-supported projects. See the program announcement or contact the program coordinator at (703) 306-1636.

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 regarding NSF programs, employment, or general information. TDD may be accessed at (703) 306-0090; FIRS at 1-800-877-8339.

This program is described in the Catalog of Federal Domestic Assistance categories 47.041 ENG, 47.049 MPS, 47.050 GEO, 47.070 CISE, 47.074 BIO, 47.075 SBE, 47.076 EHR, and 47.078 OPP.

## **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; 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 review process; to applicant institutions/grantees to provide or obtain data regarding the 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 needing information as part of the review process or in order to coordinate programs; 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," 63 *Federal Register* 267 (January 5, 1998), and NSF-51, "Reviewer/Proposal File and Associated Records," 63 *Federal Register* 268 (January 5, 1998). Submission of the information is voluntary. Failure to provide full and complete information, however, may reduce the possibility of receiving an award.

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 this burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to: Reports Clearance Officer; Information Dissemination Branch, DAS; National Science Foundation; Arlington, VA 22230.

## **YEAR 2000 REMINDER**

In accordance with Important Notice No. 120 dated June 27, 1997, Subject: Year 2000 Computer Problem, NSF awardees are reminded of their responsibility to take appropriate actions to ensure that the NSF activity being supported is not adversely affected by the Year 2000 problem. Potentially affected items include computer systems, databases, and equipment. The National Science Foundation should be notified if an awardee concludes that the Year 2000 will have a significant impact on its ability to carry out an NSF-funded activity. Information concerning Year 2000 activities can be found on the NSF Web site at: <http://www.nsf.gov/oirm/y2k/start.htm>.

OMB No. 3145-0058

P.T. 22, 34; FF

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1007000, 1008000, 1009000, 1013000, 1014000,  
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NSF 98-160

(Replaces NSF 97-91)

Electronic Dissemination Only