

# PROGRAM FOR THE ANALYSIS OF SCIENCE AND TECHNOLOGY RESOURCES: PERSONNEL, FUNDING, IMPACTS, OUTPUTS, AND INTERNATIONAL STUDIES

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## *Program Announcement* NSF 99-140

DIVISION OF SCIENCE RESOURCES STUDIES

DIRECTORATE FOR SOCIAL, BEHAVIORAL AND ECONOMIC SCIENCES

**DEADLINE DATE:** *November 1, annually*



NATIONAL SCIENCE FOUNDATION



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| ☐ To Locate NSF Employees:                          | (703) 306-1234                                 |

# SUMMARY OF PROGRAM REQUIREMENTS

## GENERAL INFORMATION

**Program Name:** Program for the Analysis of Science and Technology Resources: Personnel, Funding, Impacts, Outputs, and International Studies

### Short Description/Synopsis of Program:

The Division of Science Resources Studies (SRS) of the National Science Foundation (NSF) is responsible for the development of data and analysis pertaining to the Nation's scientific and technological (S&T) endeavors. SRS uses this information to prepare a number of analytical reports including the National Science Board's biennial report, *Science and Engineering Indicators*. As part of the input, planning, and development of future *S&E Indicators* reports as well as the Division's other analytical and statistical efforts, SRS also supports analytical and theoretical efforts by others. SRS welcomes proposals for research, workshops and studies leading to improved approaches to indicator development and presentation, new S&T indicator development, and better understanding of the S&T enterprise in the United States and globally under its Program for the Analysis of Science and Technology Resources. SRS is keenly interested in the development of new approaches to the analysis and presentation of data as indicators, with a particular focus on effective methods of presenting complex information as indicators.

**Cognizant Program Officer(s):** Jennifer Sue Bond, Program Director, Science and Engineering Indicators Program, Room 965, Division of Science Resources Studies, telephone (703) 306-1777 ext. 6925, e-mail: jbond@nsf.gov.

**Applicable Catalog of Federal Domestic Assistance (CFDA) No.:** 47.075

## ELIGIBILITY

- ◆ Limitation on the categories of organizations that are eligible to submit proposals:

**Proposals may be submitted by colleges, universities, and nonprofit or commercial organizations, or combinations of such organizations. Awards to in-**

**dividuals without organizational affiliation are rare but not precluded. Individuals intending to submit a proposal are encouraged to contact the appropriate program officer well before the proposal's formal submission.**

- ◆ PI eligibility limitations: **None**
- ◆ Limitation on the number of proposals that may be submitted by an organization: **None**

## AWARD INFORMATION

- ◆ Type of award anticipated: **Standard Grant**
- ◆ Number of awards anticipated in FY 2000: **6-8 awards**

Amount of funds available: **Most awards under the program are expected to support a level of effort of one to two professional person-years. NSF is expecting to devote at least \$400,000 to this program in FY 2000.**

Anticipated date of award: May 1, annually

## PROPOSAL PREPARATION & SUBMISSION INSTRUCTIONS

- ◆ **Proposal Preparation Instructions**
  - Letter of Intent requirements: **None are required but PI's are encouraged to send a Letter of Intent one month before submitting a proposal.**
  - Preproposal requirements: **None required.**
  - Proposal preparation instructions: **Standard NSF Grant Proposal Guide instructions**
  - Supplemental proposal preparation instructions: **None**
  - Deviations from standard (GPG) proposal preparation instructions: **None**

### ◆ Budgetary Information

Cost sharing/matching requirements: **Statutory Cost Sharing (1 percent) is required.**

- Indirect cost (F&A) limitations: **None**
- Other budgetary limitations: **None**

#### ◆ **FastLane Requirements**

FastLane proposal preparation requirements: **required in FY 2000.**

FastLane points of contact: John Gawalt, jgawalt@nsf.gov, (703) 306-1773/6940 and Martha James, mjames@nsf.gov, (703) 306-1780/6903

#### ◆ **Deadline/Target Dates**

Full Proposal Deadline: **Proposals are due at 5:00 p.m. local time on November 1, annually. (FastLane)**

**Letter of Intent Deadline Date: Not required, but PI's are encouraged to send a Letter of Intent one month before submitting a proposal.**

### **PROPOSAL REVIEW INFORMATION**

- ◆ Merit Review Criteria: **Standard National Science Board approved criteria. Relevance to program goals and possibility/likelihood of development of new indicators or new indicator approaches will also be a criterion.**

### **AWARD ADMINISTRATION INFORMATION**

- ◆ Grant Award Conditions: **GC-1 or FDP III**
- ◆ Special grant conditions anticipated: **None anticipated**
- ◆ Special reporting requirements anticipated: **None**

### **INTRODUCTION:**

The Division of Science Resources Studies (SRS) of the National Science Foundation (NSF) is responsible for the development of data and analysis pertaining to the Nation's scientific and technological (S&T) endeavors. SRS uses this information to prepare a number of analytical reports including the National Science Board's biennial report, *Science and Engineering Indicators*. As part of the input, planning, and development of future *S&E Indicators* reports as well as the Division's other analytical and

statistical efforts, SRS also supports analytical and theoretical efforts by others.

In 1972, the Science Board began the development of a system of indicators for describing the state of science and technology in the Nation.<sup>1</sup> The precise definition of indicators and their use is a subject of study on its own.<sup>2</sup> *Science and Engineering Indicators* represent broad professional consensus on the most important measures of the condition or direction of the Nation's state of the science, engineering and technology enterprise and its impact on the economy and society. Indicators assume a high level of importance because they focus attention on key issues. Because it is difficult to measure many activities and concepts precisely, it is important to consider a variety of indicators.

SRS welcomes proposals for research, workshops and studies leading to improved approaches to indicator development and presentation, new S&T indicator development, and better understanding of the S&T enterprise in the United States and globally under its Program for the Analysis of Science and Technology Resources. SRS is keenly interested in the development of new approaches to the analysis and presentation of data as indicators, with a particular focus on effective methods of presenting complex information as indicators.<sup>3</sup>

In general, three kinds of research, studies, and workshops are supported: those that develop advances in the presentation of policy indicators, those that enhance the understanding of available data and trends, and those that develop new data and indicators about subjects related to S&T resources and/or S&T policy issues. The first category is aimed at advancing the presentation of indicators in *Science and Engineering Indicators* and other SRS reports. Both theoretical and practical work will be useful to aid the intellectual development of indicator reports in the next decade.

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<sup>1</sup>See *Science and Engineering Indicators—1998* at <http://www.nsf.gov/sbe/srs/seind98/start.htm> as an example of the current set of *S&E indicators*.

<sup>2</sup>See, for example, National Research Council, "Improving Indicators of the Quality of Science and Mathematics Education in Grades K-12" Richard J. Murnane and Senta A. Raizen, Editors.

<sup>3</sup>In addition to the *S&E Indicators* reports, see other indicators reports such as *The Condition of Education 1998* at <http://nces.ed.gov/ChangingAmerica/IndicatorsofSocialandEconomicWell-BeingbyRaceandHispanicOrigin> at <http://www.whitehouse.gov/WH/EOP/CEA/html/publications.html>, *the World Development Reports* by the World Bank, the *Second European Report on S&T Indicators 1997* by the European Communities, and many others.

The goal is to create new approaches to indicators that effectively present statistical information of appropriate complexity in accessible form to a primarily policy-oriented audience. The second category is designed to assist in the analysis, interpretation, and understanding of the various indicators and their meaning for the present and future health of the science and engineering enterprise. The third category is particularly relevant to the areas of outputs and impacts of S&T activity and international S&T resources.

## PROGRAM DESCRIPTION

SRS is encouraging proposals for research, workshops, and studies leading to new and improved S&T indicator development and to the improved understanding of the S&T enterprise in the United States and globally. In addition to supporting the development of new and improved indicators, SRS is encouraging the development of new approaches to the presentation of indicators more generally. Policy indicators have been published in numerous fields (e.g., science and engineering, health, education, energy, youth) since the early 1970's. Forms of presenting indicators have evolved since that time, with some similarities and differences across fields. As we enter the first decade of the 21<sup>st</sup> century, SRS is interested in supporting the development of new generations of policy indicators. Such new approaches might, for example, attempt to reflect greater sophistication of both our understanding of S&E issues and more advanced techniques of statistical analysis and advances in electronic display of such data, while maintaining clarity for non-technical users such as decisionmakers.

## AREAS OF INTEREST

Potential topics for consideration include but are not limited to:

- Developing new and improved indicators and advances in the analysis, understanding and interpretation of existing indicators of the inputs, outputs, linkages and social or economic impacts of S&T activities.
- Conducting studies that examine improved methods of presenting complex statistical analysis in an accessible, indicator format—either in hardcopy or electronic form. This could include studies that examine various reports in “indicator” formats and develop new approaches for potential use in *Science and Engineering Indicators* reports, or historical reviews of approaches to presenting indicators that

build on previous styles to develop suggestions for new generations of policy indicators.

- Working towards theoretical and practical advances in the development and presentation of quantitative and qualitative indicators in the social and economic sciences, especially as they relate to science and technology resources. This can include studies that examine the theoretical and practical underpinnings of indicators to improve understanding of the identification, selection and development of S&E indicators from the vast array of available statistical information as well as the development of entirely new quantitative data series and S&E indicators.
- Improving analytical techniques to produce better indicators of issues related to: (1) the education and retention of scientists and engineers including minorities and women, (2) the demand and supply of S&T personnel such as SE&T personnel in information technologies, and (3) research and development (R&D) expenditures in various sectors and fields and countries including emerging fields, and (4) estimates of current and near-term future S&T resources.
- Developing data, analyses, and indicators of the globalization of science, engineering, and technology and analyses leading to a better understanding of the emerging global economy. This could include, for example, international comparisons of S&T capabilities and activities, including inputs, outputs, and impacts and interactions; indicators of international education and mobility of scientists and engineers; as well as foreign investment in S&T activities.
- Improving indicators and understanding of public attitudes toward science and technology and public understanding of science, engineering, and technology.
- Developing new indicators and analyses leading to a better understanding of the emerging “knowledge-based economy” and its impact. This could include, for example, a better understanding of developments in the service sector, or changes in university roles, structure and mission; and changes in the diffusion and impact of information technologies.
- Improving indicators and understanding of innovation and the factors underlying the innovation process, and examination and comparisons of the innovation systems of various countries and regions and how they interact.

- Developing new and improved analyses and indicators of S&T networks, linkages, partnerships and other collaborations or interactions between various nations, sectors, disciplines, and technologies.
- Enhancing modeling techniques to produce indicators that describe key interactions among important components of the economic system as they relate to science and technology.

## GENERAL INFORMATION

The mission of the Division of Science Resources Studies is:

*To provide policymakers, researchers and other decision-makers with high-quality data and analyses for making informed decisions about the Nation's science, engineering, and technology enterprise.*

SRS fulfills this mission by designing, sponsoring and conducting surveys; analyzing and synthesizing data produced in the United States and internationally; developing indicators; and preparing and disseminating reports and other consumer-oriented products. SRS obtains information through the direct support of more than a dozen national-scale surveys as well as a variety of other data collections and research projects.

SRS maintains data bases on a variety of topics including: (1) The education, characteristics, utilization, and supply of scientific, engineering and technical personnel; (2) the funding and infrastructure of S&T activities with emphasis on research and development in four economic sectors—Government, industry, higher education, and other nonprofit institutions; (3) the status of university facilities and equipment (4) patents filed in the United States and their citation patterns, (5) U.S. scientific journal articles published worldwide and their citation patterns, (6) public attitudes and understanding related to science and technology, (7) international comparisons of all of the above aspects of the S&E enterprise. These data exist in published form, are available on the World Wide Web (see the SRS web page at: <http://www.nsf.gov/sbe/srs>), and other electronic databases. SRS also maintains a number of electronic databases such as the Web-based Computer-Aided Science Policy Analysis and Research (WebCASPAR) and the Scientists and Engineers Statistical Data System (SESTAT system).

Details about each of SRS' recurrent surveys are contained in *Guide to NSF Science and Engineering Re-*

*sources Data* (NSF 95-318), and *NSF Survey Instruments Used in Collecting Science and Engineering Resources Data*. (NSF 95-317). Each year SRS produces about 35-55 publications. An example of these reports, as well as further information on the Division, its activities and databases can be found in the report *SRS Publications List: July 1995 through July 1998* (NSF 98-321). These publications can be obtained by calling (301) 947-2722. They are also available along with other SRS' publications and an overview of each of SRS major surveys on the Division's web page at: <http://www.nsf.gov/sbe/srs>.

## Data Collection

**The data to be used need not be limited to those produced by NSF and/or other Federal agencies.** Data collection activities performed under an NSF grant are the responsibility of the grantee and NSF support of the project does not constitute NSF approval of the survey design, questionnaire content, or data collection procedures. The grantee shall not represent to respondents that such data are being collected for or in association with the National Science Foundation or the U.S. Government without specific written approval of such data collection plan or device by NSF. However, this requirement is not intended to preclude mention of NSF support of the project in response to an inquiry or acknowledgment of such support in any publication of these data.

If case studies are proposed, investigators are encouraged to pursue research projects that cover several cases in order to establish the likelihood that their findings, methodology, or statistical indicators can be generalized. For example, research projects and/or workshops could cover several industries, fields of science, technical occupations, or R&D areas. Although interpretative information gathered through interviews frequently enhances data and analysis, applicants should be aware that NSF is prohibited from divulging any information received in confidence that could identify any responding individual or organization.

## ELIGIBILITY

Proposals may be submitted by colleges, universities, and nonprofit or commercial organizations, or combinations of such organizations. Awards to individuals without organizational affiliation are rare but not precluded. Individuals intending to submit a proposal are encouraged to contact the appropriate program officer well before the proposal's formal submission.

## AWARD INFORMATION

**Type of Award:** standard grant

**Estimated Number of Awards:** 6-8 in FY 2000

**Anticipated Funding Amount:**

Most awards under the program are expected to support a level of effort of one to two professional person-years. NSF expects to devote at least \$400,000 to this program in FY 2000.

**Anticipated Award Date:** May 1, annually.

## PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

### A. Proposal Preparation Guidelines

**Proposal Preparation Instructions:** Proposals submitted in response to this program announcement should be prepared and submitted in accordance with the general guidelines contained in the *Grant Proposal Guide (GPG)*, NSF 00-2. The complete text of the *GPG* (including electronic forms) is available electronically on the NSF Web site at: <http://www.nsf.gov/>. Paper copies of the *GPG* may be obtained from the NSF Publications Clearinghouse, P.O. Box 218, Jessup, MD 20794-0218, telephone (301) 947-2722 or by e-mail from [paperpubs@nsf.gov](mailto:paperpubs@nsf.gov).

Proposers are reminded to identify the program announcement number (NSF 99-140) in the program announcement/solicitation block on the NSF Form 1207, "*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. Proposal Due Dates

Proposals must be received by 5:00 p.m. local time, November 1, annually.

For electronic submission of proposals, copies of the signed proposal cover sheet must be submitted in accordance with the instructions identified below.

*Submission of Signed Cover Sheets.* For proposals submitted electronically via FastLane, the signed proposal Cover Sheet (NSF Form 1207) should be forwarded to the following address:

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

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

### C. FastLane Requirements

Proposers are encouraged to prepare and submit proposals using the NSF FastLane system. Detailed instructions for proposal preparation and submission via FastLane are available at <http://www.fastlane.nsf.gov/a1/newstan.htm>.

*Submission of Signed Cover Sheets.* For proposals submitted electronically, the signed paper copy of the proposal Cover Sheet (NSF Form 1207) should be forwarded to NSF within five working days following proposal submission in accordance with FastLane proposal preparation and submission instructions referenced above.

## PROPOSAL REVIEW INFORMATION

### A. Merit Review Criteria

Reviews of proposals submitted to NSF are solicited from peers with expertise in the substantive area of the proposed research or education project. These reviewers are selected by Program Officers charged with the oversight of the review process. NSF invites the proposer to suggest, at the time of submission, the names of appropriate or inappropriate reviewers. Care is taken to ensure that reviewers have no conflicts with the proposer. Special efforts are made to recruit reviewers from non-academic institutions, minority serving institutions, adjacent disciplines to that principally addressed in the proposal, etc.

Proposals will be reviewed against the following general merit review criteria established by the National Science Board. 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 be asked to address only those that are relevant to the proposal and for which he/she is qualified to make judgments.

### **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 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?

### **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 learner perspectives. PIs should address this issue in their proposal to provide reviewers with the information necessary to respond fully to both NSF merit review criteria. NSF staff will give it careful consideration in making funding decisions.

### **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—are 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. PIs should address this issue in their proposal to provide reviewers with the information necessary to respond fully to both NSF merit review criteria. NSF staff will give it careful consideration in making funding decisions.

**In addition to the above, relevance to program goals and the possibility/likelihood of the project resulting in the development of new indicators or new indicator approaches will also be criteria for review. PIs should address these issues in their proposal to provide reviewers and the NSF staff with the information necessary in making funding decisions.**

## **B. Merit Review Process**

Most of the proposals submitted to NSF are reviewed by mail review, panel review, or some combination of mail and panel review. Proposals submitted in response to this announcement will be reviewed by mail reviewers. Such reviewers will be from multidisciplinary fields when appropriate. Proposals deemed meritorious will be ranked on the basis of their overall ranking in terms of the NSF criteria and on their relevance to program goals and the possibility/likelihood of the project resulting in the development of new indicators or new indicator approaches will also be criterion for review. Final programmatic recommendations will be made by a panel of SRS program directors and/or staff.

All proposals are carefully reviewed by at least three other persons outside NSF who are experts in the particular field represented by the proposal. Reviewers will be asked to formulate a recommendation to either support or decline each proposal. A program officer assigned to manage the proposals' review will consider the advice of reviewers and will formulate a recommendation. In most cases, proposers will be contacted by the program officer after his or her recommendation to award or decline funding has been approved by his or her supervisor, the division director. This informal notification is not a guarantee of an eventual award. NSF will be able to tell applicants whether their proposals have been declined or recommended for funding within six months for 95 percent of proposals in this category. The time interval begins on the proposal deadline or target date or from the date of receipt, if deadlines or target dates are not used by the program. The inter-

val ends when the division director accepts the program officer's recommendation.

In all cases, after final programmatic approval has been obtained, award recommendations are then 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 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 an 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 Officer does so at its own risk.

## **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 (DGA). Organizations whose proposals are declined will be advised as promptly as possible by the cognizant NSF Program Division administering the program. Verbatim copies of reviews, not including the identity of the reviewer, will be provided automatically to the Principal Investigator.

### **B. Grant Award Conditions**

An NSF grant consists of: (1) the award letter, which includes any special provisions applicable to the grant 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 grant conditions, such as Grant General Conditions (NSF GC-1)\* or Federal Demonstration Partnership Phase III (FDP) Terms and Conditions\* and (5) any NSF brochure, program guide, announcement or other NSF issuance that may be incorporated by reference in

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\*These documents may be accessed electronically on NSF's Web site at: <http://www.nsf.gov/>. Paper copies may be obtained from the NSF Publications Clearinghouse, P.O. Box 218, Jessup, MD 20794-0218, telephone (301) 947-2722 or by e-mail from [paperpubs@nsf.gov](mailto:paperpubs@nsf.gov).

the award letter. Electronic mail notification is the preferred way to transmit NSF grants to organizations that have electronic mail capabilities and have requested such notification from the Division of Grants and Agreements.

More comprehensive information on NSF Award Conditions is contained in the *NSF Grant Policy Manual (GPM)* Chapter II, (NSF 95-26) available electronically on the NSF Web site. The *GPM* also is available in paper copy by subscription from the Superintendent of Documents, Government Printing Office, Washington, DC 20402. The *GPM* may be ordered through the GPO Web site at: <http://www.gpo.gov>.

### **C. Reporting Requirements**

For all multi-year grants (including both standard and continuing grants), the PI must submit an annual project report to the cognizant Program Officer at least 90 days before the end of the current budget period.

Within 90 days after expiration of a grant, the PI also is required to submit a final project report. Approximately 30 days before expiration, NSF will send a notice to remind the PI of the requirement to file the final project report. Failure to provide final technical reports delays NSF review and processing of pending proposals for that PI. PIs should examine the formats of the required reports in advance to assure availability of required data.

NSF has implemented a new electronic project reporting system, available through FastLane, which permits electronic submission and updating of project reports, including information on: project participants (individual and organizational); activities and findings; publications; and, other specific products and contributions. Reports will continue to be required annually and after the expiration of the grant, but PIs will not need to re-enter information previously provided, either with the proposal or in earlier updates using the electronic system.

**Effective October 1, 1998, PIs are required to use the new reporting format for annual and final project reports. PIs are strongly encouraged to submit reports electronically via FastLane. For those PIs who cannot access FastLane, paper copies of the new report formats may be obtained from the NSF Clearinghouse as specified above. NSF expects to require electronic submission of all annual and final project reports via FastLane beginning in October, 1999.**

#### **D. New Awardee Information**

If the submitting organization has never received an NSF award, it is recommended that the organization's appropriate administrative officials become familiar with the policies and procedures in the NSF *Grant Policy Manual* which are applicable to most NSF awards. *The Prospective New Awardee Guide* (NSF 97-100) includes information on: Administration and Management Information; Accounting System Requirements and Auditing Information; and Payments to Organizations with Awards. This information will assist an organization in preparing documents that NSF requires to conduct administrative and financial reviews of an organization. The guide also serves as a means of highlighting the accountability requirements associated with Federal awards. This document is available electronically on NSF's Web site at: <http://www.nsf.gov/cgi-bin/getpub?nsf97100>.

#### **CONTACTS FOR ADDITIONAL INFORMATION**

General inquiries should be made to: Jennifer Sue Bond, Program Director, Science and Engineering Indicators Program, Room 965, Division of Science Resources Studies, telephone (703) 306-1777 ext. 6925, e-mail: [jbond@nsf.gov](mailto:jbond@nsf.gov). For FastLane questions con-

tact: John Gawalt, [jgawalt@nsf.gov](mailto:jgawalt@nsf.gov), (703) 306-1773 ext. 6940 and Martha James [mjames@nsf.gov](mailto:mjames@nsf.gov), (703) 306-1780 ext. 6903.

#### **OTHER PROGRAMS OF INTEREST**

The NSF *Guide to Programs* is a compilation of funding opportunities for research and education in science, mathematics, and engineering. General descriptions of NSF programs, research areas, and eligibility information for proposal submission are provided in each chapter. Beginning in fiscal year 1999, the NSF *Guide to Programs* only will be available electronically, at <http://www.nsf.gov/cgi-bin/getpub?gp>. Many NSF programs offer announcements concerning specific proposal requirements. To obtain additional information about these requirements, contact the appropriate NSF program offices listed in Appendix A of the GPG.

Any changes in NSF's fiscal year programs occurring after press time for the *Guide to Programs* will be announced in the NSF E-Bulletin, available electronically on the NSF Web site at: <http://www.nsf.gov/home/ebulletin/>. Subscribers can also sign up for NSF's Custom News Service to find out what funding opportunities are available.

## ABOUT THE NATIONAL SCIENCE FOUNDATION

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 (unless otherwise specified in the eligibility requirements for a particular program).

Facilitation Awards for Scientists and Engineers with Disabilities (FASED) 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 or through FIRS on 1-800-877-8339.

We want all of our communications to be clear and understandable. If you have suggestions on how we can improve this document or other NSF publications, please email us at <http://www.plainlanguage@nsf.gov>.

## 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 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 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 Na-

tional 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>.

**Catalogue of Federal Domestic Assistance (CFDA) No.: 47.075**