Science and Technology Studies (STS)

Program Solicitation
NSF 04-531
Replaces Document NSF 01-159

National Science Foundation
Directorate for Social, Behavioral, and Economic Sciences
Division of Social and Economic Sciences

Full Proposal Target Date(s):

March 15, 2004
and February 01 annually thereafter, for all modes of support EXCEPT Small Grants for Training and Research Fellowships (SGTRF)

August 01, 2004
and August 01 annually thereafter, for all modes of support INCLUDING Small Grants for Training and Research Fellowships (SGTRF)

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

Science and Technology Studies (STS)

Synopsis of Program:

The STS Program supports research and related activities that contribute to systematic understanding of the character and development of science and technology, including their cultural, intellectual, material, and social dimensions. The program supports research on the nature and development of technology and science, both in the past and present; on differences in the nature of theory and evidence in various fields of science and engineering; and on the interactions among science, technology and society. Proposals are welcomed from various disciplinary perspectives, including history of science, history of technology, philosophy of science, and various social sciences, including sociology, anthropology, and political science.

This program solicitation covers the following modes of support:

1. **STS Scholars Awards**

2. **Grants for Collaborative Research**

3. **STS Postdoctoral Fellowships**

4. **STS Professional Development Fellowships**

5. **Doctoral Dissertation Research Improvement Grants**

6. **STS Small Grants for Training and Research Fellowships**

7. **Conference and Workshop Awards**

8. **Other Funding Opportunities**

Cognizant Program Officer(s):

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

- 47.075 --- Social, Behavioral and Economic Sciences

Eligibility Information

- **Organization Limit:**

  See **Section II. Program Description** for detailed information.

- **PI Eligibility Limit:**

  See **Section II. Program Description** for detailed information.

- **Limit on Number of Proposals:** None Specified.

Award Information

- **Anticipated Type of Award:** Standard or Continuing Grant
- **Estimated Number of Awards:** 65
- **Anticipated Funding Amount:** $3,800,000 in FY 2004 pending availability of funds

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **Full Proposal Preparation Instructions:** This solicitation contains information that deviates from the standard Grant Proposal Guide (GPG) proposal preparation guidelines. Please see the full text of this solicitation for further information.

B. Budgetary Information

- **Cost Sharing Requirements:** Cost Sharing is not required.
- **Indirect Cost (F&A) Limitations:**

  Indirect costs are not allowed on Doctoral Dissertation Research Improvement Grants. Indirect costs are not allowed on STS Postdoctoral Fellowships, STS Professional Development Fellowships, and STS Small Grants for Training and Research Fellowships. Those three Fellowship awards do allow a fixed-amount institutional allowance of $3000/ year in lieu of indirect costs.

- **Other Budgetary Limitations:** Other budgetary limitations apply. Please see the full text of this solicitation for further information.

C. Due Dates

- **Full Proposal Target Date(s):**

  March 15, 2004
  and February 01 annually thereafter, for all modes of support EXCEPT Small Grants for Training and Research Fellowships (SGTRF)

  August 01, 2004
  and August 01 annually thereafter, for all modes of support INCLUDING Small Grants for Training and Research Fellowships (SGTRF)

Proposal Review Information

- **Merit Review Criteria:** National Science Board approved criteria apply.

Award Administration Information

- **Award Conditions:** Standard NSF award conditions apply.
- **Reporting Requirements:** Standard NSF reporting requirements apply.

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I. INTRODUCTION

The Science and Technology Studies (STS) Program supports research and related activities that contribute to systematic understanding of the character and development of science and technology, including their cultural, intellectual, material, and social dimensions. The program supports research on the nature and development of technology and science, both in the past and present, and on differences in the nature of theory and evidence in various fields of science and engineering. STS also supports research on the interactions among science, technology and society, including such topics as the foundations of scientific and technological knowledge and institutions; the relations between science and other social institutions and groups; and processes of scientific and technological innovation and change. Proposals are welcome from the various disciplinary perspectives that comprise the science and technology studies community, a diverse and growing intellectual field that encompasses three distinct intellectual traditions: The history of science and the history of technology; the philosophy of science; and the array of scholarly disciplines from the social sciences (sociology, anthropology, political science, etc.) pursuing social studies of science and technology. In recent years, the NSF has made 60-65 new awards annually under this program, which has had an annual budget of about $3.8 million.

Researchers whose projects are primarily concerned with ethical and social values, policies, and the obligations that arise in the interactions among science, technology and society should contact NSF's Societal Dimensions of Engineering, Science and Technology Program (SDEST). The SDEST and STS Programs often cooperate, but the programs retain different programmatic and research emphases.

Except for doctoral dissertation research, science and technology studies of medicine, public health and society are not normally supported by NSF. Researchers should contact the National Institutes of Health and/or the National Endowment for the Humanities for support of research in these fields.

II. PROGRAM DESCRIPTION

The STS Program provides a range of funding opportunities designed to support the full spectrum of research, educational,

and scholarly activities undertaken by scholars within science and technology studies. The Program urges potential investigators to discuss their proposals with the cognizant Program Officer(s)in advance of submission. This program solicitation covers the eight (8) modes of support detailed below.

1. STS Scholars Awards

2. Grants for Collaborative Research

3. STS Postdoctoral Fellowships

4. STS Professional Development Fellowships

5. Doctoral Dissertation Research Improvement Grants

6. STS Small Grants for Training and Research Fellowships

7. Conference and Workshop Awards

8. Other Funding Opportunities

MODES OF SUPPORT

1. STS SCHOLARS AWARDS

STS Scholars Awards are the usual award for individual investigators who are undertaking research projects, ordinarily for part or all of an academic year, a summer, or some combination of academic year and summer. Additional support may be requested for up to two additional years (up to three years total), although full-time support normally is provided for only one year.

Budget Guidelines for Scholars Awards

- Awards normally provide support for academic year (nine months) research, including salary, fringe benefits, and other direct costs, up to a total of approximately $70,000 for total direct costs.
- Proposals may also request support for full-time summer research, including salary, fringe benefits, and other direct costs, up to a total of approximately $20,000 for total direct costs. Summer salary request may not exceed 2/9ths (two months) of academic year salary.
- Annual limit for project support in a 12-month period is normally $90,000.
- Research assistance may also be requested but must be justified in the proposal's work plan. Normal limits for such support are $6,000 per year for an undergraduate research assistant, $15,000 per year for a graduate student, and $36,000 per year (including fringe benefits) for a designated postdoctoral researcher.
- Indirect costs assessed by institutions will be added to these levels of support.
- Projects duration -- up to three years.
- Maximum award (indirect costs excluded) is normally $150,000. Proposals of longer duration or requesting larger amounts of support will be considered if extraordinarily well justified and merited.

Eligibility Requirements for Scholars Award

Scholars Awards are normally made to U.S. academic institutions, although an individual who is not affiliated with an appropriate U.S. academic institution may submit a proposal as an independent scholar. In the latter case, the scholar must be a U.S. citizen or national, or have permanent resident status.

2. GRANTS FOR COLLABORATIVE RESEARCH

Grants for Collaborative Research support research projects that require several investigators, or investigators and advisors, or collaboration among principal investigators (PIs). [For collaborative projects that also require postdoctoral researchers or graduate student assistants, please consider Small Grants for Training and Research Fellowships (SGTRF) described below.] Some collaborative projects are designed to develop research or educational infrastructure, such as preparation of reference works, editions of scientific and personal papers, or development of data bases, digital libraries, or graphics resources for public use. Electronic dissemination of the results of such infrastructure projects should be the norm in STS projects. In this type of collaborative project, the STS Program's support should be directed to research or scholarly components including, but not limited to, archival research and annotation, as opposed to routine administrative or logistical activities.

Budget Guidelines for Collaborative Research

- The budget guidelines listed above for Scholars Awards should be followed. For each PI $70,000 is normally the maximum allowed for full-time academic year (nine months) research, $20,000 is normally allowed for full-time summer (two months) research.
- Indirect costs assessed by institutions will be added to these levels of support.
- Proposals of two or more years' duration, or proposals requesting larger amounts of support, will be considered if extraordinarily well justified and merited.

Eligibility Requirements for Collaborative Research

Collaborative Research Awards are normally made to U.S. academic institutions, although an individual who is not affiliated with an appropriate U.S. academic institution may submit a proposal as an independent PI. In the latter case, the PI must be a U.S. citizen or national, or have permanent resident status.

3. STS POSTDOCTORAL FELLOWSHIPS

STS Postdoctoral Fellowship proposals should be prepared, following the same format as a regular NSF proposal (see the NSF ***Grant Proposal Guide*** for details), including the specific additional items listed below.

The chief purpose of these Fellowships is to enhance the methodological skills and research competence of researchers in STS fields. Consequently, proposals must describe **both** a training **and** a research component, and the site for the Fellowship must be different from the institution where the Fellow received the Ph.D. degree. The proposal should justify the choices of the venue for the Fellowship and the host faculty member, in terms of the Fellow’s research and training goals. In addition host faculty must provide statements describing their plans for working with Fellows, while host institutions should provide letters agreeing to provide appropriate space and facilities. A letter of support also must be included from the Fellow's dissertation supervisor. No Fellowship may begin until the appropriate Ph.D. granting institution has certified that the Fellow has completed all requirements for the degree. Letters should be submitted in the Supplementary Documentation section of the FastLane proposal.

The Fellow generally prepares the proposal and normally should be listed as the co-Principal Investigator. The host faculty member at the host institution normally should be listed as the Principal Investigator (PI). The host institution usually submits the proposal and administers the award. In certain circumstances (such as when the Fellowship takes place at an institution outside the U.S.), Postdoctoral Fellows may submit proposals as independent PIs.

Budget Guidelines for STS Postdoctoral Fellowships

- Postdoctoral Fellowships normally provide an annual stipend of up to $36,000 (including fringe benefits) per year for support of full-time academic year study and research.

- Postdoctoral Fellowships allow research and travel expenses of up to $3,000/year. The proposal should justify expenditure of the research and travel expenses.
- Postdoctoral Fellowships provide a fixed-amount institutional allowance of $3,000/year in lieu of indirect costs. [Please note: NSF will not pay the institutional allowance to non-U.S. institutions.]
- There are no dependents' allowances, and moving expenses, if requested, must be deducted from the research and travel allowance.
- The maximum award normally will be $42,000/year. Awards may be for up to two years

Eligibility Requirements for STS Postdoctoral Fellowships

Postdoctoral Fellowships are available for STS researchers within 5 years of receipt of their Ph.D. degree. All Fellows must be U.S. citizens or nationals, or have permanent resident status.

4. STS PROFESSIONAL DEVELOPMENT FELLOWSHIPS

STS Professional Development Fellowship proposals should follow the same format as a regular NSF proposal (see the NSF ***Grant Proposal Guide*** for details), including the specific additional items listed below.

Professional Development Fellowships (PDFs) are available for researchers trained in history, philosophy, or social studies of science and technology who wish to improve and expand their skills in the areas of science or engineering, and conversely for physical and natural scientists and engineers who desire training in STS disciplines. For example, historians, philosophers and social scientists may use this award to work with a scientist or engineer to learn the technical aspects of research in their area. Alternatively, scientists or engineers may use this award to work with a historian, philosopher or social scientist to learn the research methods and analytical tools and approaches current in STS fields.

These Fellowship proposals must contain **both** a training **and** a research component, and should justify the choice of both the venue and the host faculty member, in relation to the Fellow's training and research goals. These proposals also must include letters from the host faculty describing plans for working with the Fellows, and from the host institutions agreeing to provide appropriate space and facilities. These should be submitted in the Supplementary Documentation section of the FastLane proposal.

Budget Guidelines for STS Professional Development Fellowships

- The annual stipend for these awards depends upon the Fellow's current salary and work history, and can range from $36,000 to $60,000, inclusive of fringe benefits, for a full-time academic year of study and research in a field outside the Fellow's current area of expertise.
- These awards provide $3000 for travel and research expenses. The budget should justify these expenditures; moving expenses (if requested) must be deducted from the travel allowance.
- These Fellowships provide a fixed-amount institutional allowance of $3,000/year in lieu of indirect costs.

Eligibility Requirements for STS Professional Development Fellowships

All Fellows must be U.S. citizens or nationals, or have permanent resident status.

5. DOCTORAL DISSERTATION RESEARCH IMPROVEMENT GRANTS

These awards provide funds for dissertation research expenses not normally available through the student's university. The dissertation advisor is the principal investigator on these proposals; the doctoral student should be listed as co-principal investigator.

Dissertation proposals should be prepared in accordance with the guidelines for regular research proposals. (See the NSF

Grant Proposal Guide and the instructions and additional items listed below.) The Project Description section should describe the scientific significance of the work, including its relationship to other current research, and the design of the project in sufficient detail to permit evaluation. It should also present and interpret progress to date if the research is already underway. The Results from Prior NSF Support section is not required with these proposals.

Awards are not intended to provide the full costs of a student's doctoral dissertation research. Funds may be used only for valid research expenses which include, but are not limited to, conducting field research in settings away from campus that would not otherwise be possible, data collection and sample survey costs, payments to subjects or informants, specialized research equipment, analysis and services not otherwise available, supplies, travel to archives, specialized collections, and facilities or field research locations, and partial living expenses for conducting necessary research away from the student's university. Funds are to be used exclusively for the actual conduct of dissertation research. These funds may not be used as a student stipend, for tuition, textbooks, journals, or for the typing, reproduction, or publication costs of the student's dissertation. Funds may be requested for research assistants only in very special circumstances, which should be carefully justified.

The proposal must include a letter from the faculty advisor. This document is not intended as a traditional recommendation, but should evaluate the student's promise as a researcher, the student's capabilities for undertaking this project, and the value and status of the proposed research. It should also discuss the student's current progress in the graduate program, affirming when the student passed -- or will pass -- the qualifying exams and completed all course work required for the degree. If the doctoral student will use the award for travel expenses to work with a specialist, the proposal should provide a justification for this choice and a letter from the specialist agreeing to work with the student. These requirements must be met before an award will be made. Letters should be submitted in the Supplementary Documentation section of the FastLane proposal.

Budget Guidelines for STS Doctoral Dissertation Research Improvement Grants

- The usual limit on a dissertation award is $8,000 for research in North America.
- The usual limit for international research is $12,000.
- No indirect costs are allowed.

Eligibility Requirements for STS Doctoral Dissertation Research Improvement Grants

- Doctoral students who are enrolled in U.S. graduate programs are eligible to apply.
- Doctoral students **must** have passed -- or will pass -- the qualifying exams and completed all course work required for the degree prior to receiving the award.

6. STS SMALL GRANTS FOR TRAINING AND RESEARCH FELLOWSHIPS

Small Grants for Training and Research Fellowships should follow the same format as a regular NSF proposal. (See the NSF ***Grant Proposal Guide*** and the instructions and additional items listed below.)

This program is intended to enhance the methodological skills and research competence of researchers at the postdoctoral and graduate level by providing sustained research and training opportunities on important issues in STS. Consequently, proposals must describe **both** a training **and** a research component on a subject or theme of significance. In addition, host faculty must provide statements describing their plans for working with the Fellow and graduate students, while the host institution must provide letters agreeing to provide appropriate space and facilities. Finally, the Fellow must provide a letter of support from the dissertation supervisor and certification that the Fellow has completed all requirements for the degree. Letters should be submitted in the Supplementary Documentation section of the FastLane proposal.

The Fellow generally prepares the proposal and should be listed as the co-Principal Investigator. The subject or theme proposed by the Fellow must be related to the area of the Fellow's expertise and must reflect an area around which an extended research and training program may be constructed. The host faculty at the sponsoring institution normally should be listed as the Principal Investigator(s) and should indicate how the subject or theme of the proposal coincides with

strengths of the host faculty and institution. The host institution usually submits the proposal and administers the award.

Budget Guidelines for SGTRF

- These Fellowship awards provide a maximum of $100,000 per year (including the institutional allowance) to support the Postdoctoral Fellow and up to three graduate students.
- Each award may last up to three years, depending on the duration of the postdoctoral position. The composition of graduate students supported by the award may change during the duration of the award.
- Postdoctoral Fellowships normally provide an annual stipend of up to $36,000 (including fringe benefits) per year for support of full-time academic year study and research.
- Also allowable are a research and travel expense allowance of $3,000 per year and a fixed-amount institutional allowance of $3,000 per year in lieu of indirect costs. The proposal should justify expenditure of the research and travel allowance
- Graduate student support is $15,000 per student, each with a research and travel expense of $1,500 annually. The proposal should justify expenditure of the research and travel allowance.
- All expenses for the SGTRF should be listed on the Participant Support line of the proposal budget.
- STS may fund only 2 or 3 SGTRFs each year.

Eligibility Requirements for Small Grants for Training and Research Fellowships (SGTRF)

- These SGTRF awards are available for STS researchers within 5 years of receipt of the Ph.D. and for graduate students who are regularly admitted students in STS graduate programs.
- All Postdoctoral Fellows must be U.S. citizens or nationals, or have permanent resident status.
- **NOTE: SGTRF proposals will only be considered in the Fall of each year. The target date for submission of these proposals is August 1 annually.**

7. CONFERENCE AND WORKSHOP SUPPORT

These proposals should be prepared in accordance with the NSF ***Grant Proposal Guide*** and the additional information below.

STS can help to support national or international conferences, symposia, and research workshops that enable scientists, engineers, researchers in STS areas of support, policy makers, and representatives of interested groups to develop, evaluate, and share new research findings. Proposals for conference or workshop support should describe the need for the gathering, the proposed date and location, topics and persons who will be involved, prior related meetings, publicity, and expected outcomes. Every effort must be made to include among proposed participants younger scholars and members of underrepresented groups. Conferences and workshops may, where justified, be carried out as special sessions in regular meetings of professional societies.

STS gives priority to those conferences and symposia that promote interactions between researchers in STS and scientists and engineers, or between STS scholars and members of scholarly communities not normally in contact with each other. Meetings usually should be open, and the ultimate goal of the gathering should be development of a new field of scholarship, pedagogy, or research.

Budget Guidelines for Conferences and Workshops

- STS normally limits support for conferences and workshops to $10,000.
- Expenses (travel, stipends, honoraria, etc.) for attendees should be entered on the Participant Support line of the budget.

Eligibility Requirements for Conferences and Workshops

Conference and workshop awards normally are made to U.S. academic institutions, although an individual who is not affiliated with an appropriate U.S. academic institution may submit a proposal as an independent PI. In the latter case, the PI must be a U.S. citizen or national, or have permanent resident status.

8. OTHER GRANT OPPORTUNITIES

The STS program may provide supplemental funding to existing awards in order to create research experiences for undergraduates (REU). The STS Program participates in most Foundation-wide initiatives, such as CAREER, ADVANCE, MRI, and specially-focused research efforts. Information about these efforts can be found at the Crosscutting / Interdisciplinary Programs home page: http://www.nsf.gov/home/crssprgm/.

III. ELIGIBILITY INFORMATION

Organization Limit: See **Section II. Program Description** for detailed information.

PI Eligibility Limit: See **Section II. Program Description** for detailed information.

Limit on Number of Proposals: None Specified.

IV. AWARD INFORMATION

- Anticipated Type of Award: Standard or Continuing Grant
- Estimated Number of Awards: 65
- Anticipated Funding Amount: $3,800,000 in FY 2004 pending availability of funds

See **Section II. Program Description** for detailed information.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Full Proposal Instructions:

Proposals submitted in response to this program announcement/solicitation should be prepared and submitted in accordance with the general guidelines contained in the NSF *Grant Proposal Guide* (GPG). The complete text of the GPG is available electronically on the NSF Website at: http://www.nsf.gov/cgi-bin/getpub?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.

This program solicitation has instructions that deviate from the GPG guidelines. See Section II. Program Description for detailed information about each mode of support.

Proposers are reminded that proposals are evaluated not only by specialists in their research area, but also by generalists from various disciplines within the larger domain of science and technology studies. It is imperative that proposals be

comprehensible to all readers, and proposers are urged to consider carefully the use of jargon and highly specialized terminology without explanation, or currently fashionable vocabulary.

Proposers are also reminded to pay close attention to the legibility of their proposal as well. While NSF guidelines allow 10-point type, many fonts this size produce very small text, especially in single-spaced documents. Forcing readers to struggle to decipher one's meaning and intent is never a good strategy. Therefore, the STS Program recommends that applicants use at least 11-point type. Proposals prepared with type that is too small to read may be returned without review.

Proposers are reminded to identify the program announcement/solicitation number (04-531) in the program announcement/ solicitation block on the proposal Cover Sheet. 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 in proposals submitted under this Program Solicitation.

Indirect Cost (F&A) Limitations:

Indirect costs are not allowed on Doctoral Dissertation Research Improvement Grants. Indirect costs are not allowed on STS Postdoctoral Fellowships, STS Professional Development Fellowships, and STS Small Grants for Training and Research Fellowships. Those three Fellowship awards do allow a fixed-amount institutional allowance of $3000/year in lieu of indirect costs.

Other Budgetary Limitations:

See **Section II. Program Description** for detailed information.

C. Due Dates

Proposals must be submitted by the following date(s):

Full Proposal Target Date(s):

March 15, 2004
and February 01 annually thereafter, for all modes of support EXCEPT Small Grants for Training and Research Fellowships (SGTRF)

August 01, 2004
and August 01 annually thereafter, for all modes of support INCLUDING Small Grants for Training and Research Fellowships (SGTRF)

D. FastLane Requirements

Proposers are required to prepare and submit all proposals for this announcement/solicitation through the FastLane system. Detailed instructions for proposal preparation and submission via FastLane are available at: http://www.fastlane.nsf.gov/a1/

newstan.htm. For FastLane user support, call the FastLane Help Desk at 1-800-673-6188 or e-mail fastlane@nsf.gov. The FastLane Help Desk answers general technical questions related to the use of the FastLane system. Specific questions related to this program announcement/solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this announcement/solicitation.

Submission of Electronically Signed Cover Sheets. The Authorized Organizational Representative (AOR) must electronically sign the proposal Cover Sheet to submit the required proposal certifications (see Chapter II, Section C of the Grant Proposal Guide for a listing of the certifications). The AOR must provide the required electronic certifications within five working days following the electronic submission of the proposal. Proposers are no longer required to provide a paper copy of the signed Proposal Cover Sheet to NSF. Further instructions regarding this process are available on the FastLane Website at: http://www.fastlane.nsf.gov

VI. PROPOSAL REVIEW INFORMATION

A. NSF Proposal Review Process

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, or adjacent disciplines to that principally addressed in the proposal.

The National Science Board approved revised criteria for evaluating proposals at its meeting on March 28, 1997 (NSB 97-72). All NSF proposals are evaluated through use of the two merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

On July 8, 2002, the NSF Director issued Important Notice 127, Implementation of new Grant Proposal Guide Requirements Related to the Broader Impacts Criterion. This Important Notice reinforces the importance of addressing both criteria in the preparation and review of all proposals submitted to NSF. NSF continues to strengthen its internal processes to ensure that both of the merit review criteria are addressed when making funding decisions.

In an effort to increase compliance with these requirements, the January 2002 issuance of the GPG incorporated revised proposal preparation guidelines relating to the development of the Project Summary and Project Description. Chapter II of the GPG specifies that Principal Investigators (PIs) must address both merit review criteria in separate statements within the one-page Project Summary. This chapter also reiterates that broader impacts resulting from the proposed project must be addressed in the Project Description and described as an integral part of the narrative.

Effective October 1, 2002, NSF will return without review proposals that do not separately address both merit review criteria within the Project Summary. It is believed that these changes to NSF proposal preparation and processing guidelines will more clearly articulate the importance of broader impacts to NSF-funded projects.

The two National Science Board approved merit review criteria are listed below (see the Grant Proposal Guide Chapter III.A for further information). 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 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 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 Protocol and Associated Customer Service Standard

All proposals are carefully reviewed by at least three other persons outside NSF who are experts in the particular field represented by the proposal. Proposals submitted in response to this announcement/solicitation will be reviewed by Ad Hoc Review followed by Panel Review.

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

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 Director. In addition, the proposer will receive an explanation of the decision to award or decline funding.

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 the Division Director. This informal notification is not a guarantee of an eventual 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.

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 Division 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.A. 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 (NSF-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 agreement awards also are administered in accordance with NSF Cooperative Agreement Terms and Conditions (CA-1). Electronic mail notification is the preferred way to transmit NSF awards to organizations that have electronic mail capabilities and have requested such notification from the Division of Grants and Agreements.

*These documents may be accessed electronically on NSF's Website at http://www.nsf.gov/home/grants/grants_gac.htm. 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 is contained in the NSF *Grant Policy Manual* (GPM) Chapter II, available electronically on the NSF Website at http://www.nsf.gov/cgi-bin/getpub?gpm. The GPM is also for sale through the Superintendent of Documents, Government Printing Office (GPO), Washington, DC 20402. The telephone number at GPO for subscription information is (202) 512-1800. The GPM may be ordered through the GPO Website 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 the expiration of an award, the PI also is required to submit a final project report. Failure to provide final technical reports delays NSF review and processing of pending proposals for the PI and all Co-PIs. PIs should examine the formats of the required reports in advance to assure availability of required data.

PIs are required to use NSF's electronic project reporting system, available through FastLane, for preparation and submission of annual and final project reports. This system 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. PIs will not be required to re-enter information previously provided, either with a proposal or in earlier updates using the electronic system.

VIII. CONTACTS FOR ADDITIONAL INFORMATION

General inquiries regarding this program should be made to:

- Dr.Keith R Benson, Program Director, telephone: 702-292-7283, fax: 703-292-9068, email: kbenson@nsf.gov
- Kristin L. Walker, Science Analyst, Directorate for Social, Behavioral & Economic Sciences, Division of Social and Economic Sciences, 995 N, telephone: (703) 292-7323, fax: (703) 292-9068, email: kwalker@nsf.gov
- John P. Perhonis, Associate Program Director, Directorate for Social, Behavioral & Economic Sciences, Division of Social and Economic Sciences, 995 N, telephone: (703) 292-7279, fax: (703) 292-9068, email: jperhoni@nsf.gov
- Debra T. Newman, Program Assistant, Directorate for Social, Behavioral & Economic Sciences, Division of Social and Economic Sciences, 995 N, telephone: (703) 292-7287, fax: (703) 292-9068, email: dnewman@nsf.gov

For questions related to the use of FastLane, contact:

- Geri Farves, Program and Technology Specialist, Directorate for Social, Behavioral & Economic Sciences, Division of Social and Economic Sciences, 995 N, telephone: (703) 292-7309, fax: (703) 292-9068, email: gfarves@nsf.gov

IX. OTHER PROGRAMS OF INTEREST

The NSF *Guide to Programs* is a compilation of funding for research and education in science, mathematics, and engineering. The NSF *Guide to Programs* is available electronically at http://www.nsf.gov/cgi-bin/getpub?gp. General descriptions of NSF programs, research areas, and eligibility information for proposal submission are provided in each chapter.

Many NSF programs offer announcements or solicitations concerning specific proposal requirements. To obtain additional information about these requirements, contact the appropriate NSF program offices. 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, which is updated daily on the NSF Website at http://www.nsf.gov/home/ebulletin, and in individual program announcements/solicitations. Subscribers can also sign up for NSF's Custom News Service (http://www.nsf.gov/home/cns/start.htm) to be notified of new funding opportunities that become available.

Related Programs:

The Home Page for the STS Program has links to a number of other NSF programs that might interest potential proposers. Investigators are invited to visit the STS Page at http://www.nsf.gov/sbe/ses/sts/start.htm

Investigators are especially urged to examine the opportunities identified on NSF's Crosscutting/Interdisciplinary Programs home page. These programs reach across the entire Foundation. Among the most visible of these programs are the Research Experiences for Undergraduate (REU), the CAREER competition for young investigators, the Major Research Instrumentation (MRI) competition, the effort to increase the participation of women in careers in science and engineering (ADVANCE), and the special research initiatives of recent years. Information can be found at http://www.nsf.gov/home/crssprgm/

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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 GPG Chapter II, Section D.2 for instructions regarding preparation of these types of proposals.

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
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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 proposal 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.

An agency may not conduct or sponsor, and a person is not required to respond to an information collection unless it displays a valid OMB control number. The OMB control number for this ollection 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 this burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to: Suzanne Plimpton, Reports Clearance Officer, Division of Administrative Services, National Science Foundation, Arlington, VA 22230.

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