Societal Dimensions of Engineering, Science, and Technology (SDEST)

Ethics and Values Studies, Research on Science and Technology

Program Announcement

NSF-01-152

DIRECTORATE FOR SOCIAL, BEHAVIORAL, AND ECONOMIC SCIENCES
   DIVISION OF SOCIAL AND ECONOMIC SCIENCES

FULL PROPOSAL TARGET DATE(S): February 1 of each year, August 1 of each year

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SUMMARY OF PROGRAM REQUIREMENTS

GENERAL INFORMATION

Program Title: Societal Dimensions of Engineering, Science, and Technology (SDEST)

Synopsis of Program: SDEST considers proposals that examine questions that arise in the interactions of engineering, science, technology, and society. The **Ethics and Values Studies (EVS)** component supports examinations of the ethical and value dimensions in those interactions. The **Research on Knowledge, Science and Technology (RST)** component supports research on social and strategic choices that influence knowledge production and innovation and their effects.

Cognizant Program Officer(s):

- Rachelle D. Hollander, SDEST-EVS, RST, Program Director, SBE, SES, 995, telephone: 703-292-7272, e-mail: rholland@nsf.gov.

- John Perhonis, SDEST-Dissertation Proposals, Program Director, SBE, SES, 995, telephone: 703-292-7279, e-mail: jperhoni@nsf.gov.

- Gayle Laws, SDEST, Program Assistant, SBE, SES, 995, telephone: 703-292-7292, e-mail: glaws@nsf.gov.

- Fast Lane Help, SBE, SES, e-mail: sesfl@nsf.gov.

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

- 47.075 --- Social, Behavioral and Economic Sciences

ELIGIBILITY INFORMATION

- **Organization Limit:** None

- **PI Eligibility Limit:** Individuals must be U.S. citizens, or U.S. nationals, or have permanent U.S. resident status to receive individual fellowships or individual awards.

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

AWARD INFORMATION

- **Anticipated Type of Award:** Standard or Continuing Grant

- **Estimated Number of Awards:** 30

- **Anticipated Funding Amount:** The SDEST program budget is about $2.75 million a year, pending availability of funds.

PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

- **Full Proposals:** Deviations From Standard Preparation Guidelines

  - The program announcement/solicitation contains deviations from the standard Grant Proposal Guide (GPG) proposal preparation guidelines. Please see the full program announcement/solicitation for further information.

B. Budgetary Information

- **Cost Sharing Requirements:** Cost Sharing is not required.

- **Indirect Cost (F&A) Limitations:** SDEST fellowships and dissertation awards do not allow indirect costs. Funds for graduate students and postdoctoral fellows in SDEST Small Grants for Training and Research are also not subject to indirect costs.

- **Other Budgetary Limitations:** Not Applicable.

C. Deadline/Target Dates

- **Letters of Intent (*optional*):** None

- **Preliminary Proposals (*optional*):** None

- **Full Proposal Target Date(s):** February 1 of each year, August 1 of each year

D. FastLane Requirements

- **FastLane Submission:** Required

- **FastLane Contact(s):**

  - Geri Farves, Program & Technology Specialist, SBE, SES, 995, telephone: 703-292-7309, e-mail: gfarves@nsf.gov.

  - Philip X. Johnson, Computer Specialist, SBE, BCS/SES, 995, telephone: 703-292-7312, e-mail: pxjohnso@nsf.gov.

PROPOSAL REVIEW INFORMATION

- **Merit Review Criteria:** National Science Board approved criteria. Additional merit review considerations apply. Please see the full program announcement/solicitation for further information.

AWARD ADMINISTRATION INFORMATION

- **Award Conditions:** Standard NSF award conditions apply.

- **Reporting Requirements:** Standard NSF reporting requirements apply.

I. INTRODUCTION

The Societal Dimensions of Engineering, Science, and Technology (SDEST) program has two major program areas. One is called Ethics and Values Studies (EVS); the other, Research on Knowledge, Science and Technology (RST). The Societal Dimensions program is in the Division of Social and Economic Sciences (SES) in the Directorate for Social, Behavioral and Economic Sciences (SBE) of the National Science Foundation.

SDEST considers proposals that examine questions that arise in the interactions of engineering, science, technology and society. Ethics and Values Studies supports examinations of the ethical and value dimensions in those interactions. Research on Knowledge, Science and Technology supports research on social and strategic choices that influence knowledge production and innovation and their effects.

NSF makes approximately 30 new awards each year under this program, with an annual budget of about $2.75 million, pending availability of funds. In accordance with the NSF Strategic Plan, program goals include advancing scholarly and scientific work in these areas and making research results of broad use in educational, policy and other settings.

II. PROGRAM DESCRIPTION

Human and societal commitments to research and innovation transform social and physical landscapes. These processes and transformations incorporate social and ethical values. Investment in research and technological development and their embedding in socio-environmental systems illustrate the mutual influence of social and scientific or technical processes. The SDEST program is interested in supporting research projects that can illuminate these interactions, and examine and evaluate their effects. Comparative and international research is eligible for consideration as are proposals to summarize and assess the knowledge base about an important issue.

SDEST is also interested in considering proposals for research on the implications of different national strategies for support of science and technology, on development of models and other approaches with which to gather and interpret information, and on improvement of data resources. The program welcomes inquiries from researchers who are uncertain about whether the topic or method they have in mind is appropriate for consideration.

SDEST does not consider proposals from individual academic institutions to support lectureships or conference activities except in the following circumstances. It does consider proposals where conferences or workshops are part of a research or education project plan, and proposals for workshops to develop research agendas on topics important to program goals. It will consider proposals from national organizations such as professional societies, for small amounts of assistance for conference activities on topics appropriate to these research areas. Research focused primarily on ethical, value or policy issues for clinical research or practice or resource allocation in health care is not normally supported by the NSF or considered in SDEST.

Ethics and Values Studies

Research on ethics, values, and the conduct of science and engineering and the social influence of science, engineering, and technology is an evolving area of study. This research often takes its lead from current social issues where innovations raise questions or promote opportunity. It often uses historical and philosophical modes of analysis and theories and methods from science and technology studies, applied ethics, and other areas of the social sciences and humanities. Information and analysis from the natural and physical sciences and engineering may also play a role in this research.

Proposals address the following kinds of issues. These descriptions are suggestive, not exhaustive.

· scientific or professional ethics, including research ethics;
· the role of social or organizational values in scientific or engineering practice and its outcomes;
· equity issues in the development, use and effects of science or technology;
· controversy and the resolution of controversy involving science or technology;
· normative issues in decisions involving science or technology, and
· ethical and value issues for organizational policy and practice involving science, engineering, or technology.

Within these topics can fall a wide range of subjects,

· from ethical issues for research on vulnerable populations to ethics, values, and the relationship of expertise to democratic decision making;
· from values, value conflicts, and decision-making involving scientists and engineers in industry, government or non-profit organizations, to those concerning scientists, engineers and science and engineering students in academia;
· from ethics and biotechnology to ethics and the world wide web.

The following kinds of questions are illustrative of those addressed in EVS supported projects:

· How do choices about acceptable scientific evidence or technological development evince social values? What are their ethical implications?
· What roles do and should public values play in selection of research priorities or evaluation of products and programs that incorporate scientific findings or engineering designs?
· What scientific or social values influence the directions and outcomes of research?
· How can social institutions stimulate responsible research conduct? What institutional and technological innovations can help to do so?
· What kinds of training in research ethics are suitable for different scientific or engineering disciplines or professions? For science and engineering students, in formal or informal settings?
· How does or should disciplinary, professional, or collective responsibility affect the work of scientists and engineers, their professions, and the organizations in which they work?

One area of current interest for the social and behavioral sciences is research with human subjects. EVS encourages proposals to examine the human research protection process and its implications for these sciences. The kinds of research that would be eligible for consideration include the role of institutional review boards in the process; the nature and extent of risks from social and behavioral sciences research and the kinds of procedures that minimize risks and promote benefits; special issues of informed consent due to sensitive research topics or international activities; issues posed by deception; questions of confidentiality in Internet research; protection for secondary subjects and problems of secondary data; etc.

SDEST also supports educational projects on ethical and value dimensions in science, engineering, and technology. The program works closely with programs in the Directorate for Education and Human Resources (EHR) at NSF in the consideration of these proposals. Educational projects use results from research on ethics and science and engineering to develop programs or materials for formal or informal educational settings. Proposals for educational projects should indicate how results will have impacts beyond improving a course or curriculum at a single institution. In addition, SDEST provides small supplemental awards for ethics activities in NSF-supported Research Experiences for Undergraduate sites projects.

Research on Knowledge, Science and Technology (RST)

Research under this component examines social and strategic choices, including the legal, economic, and political contexts, that influence knowledge production and innovation and their effects. It addresses questions of interest to scholars and decisionmakers concerned with directions, management, and outcomes of U.S. investment in science, engineering, and technology. It funds qualitative and institutional research into the supports for science and technology, as well as the processes and outcomes of science and technology policy. It also considers proposals using quantitative and empirical approaches to data collection and analysis. Information and analysis from the natural and physical sciences and engineering may also play a role in this research.

Proposals address the following kinds of issues. These descriptions are suggestive, not exhaustive.

· factors influencing the directions of scientific and engineering research and technological change, both domestic and international;
· human resources and science and technology; and
· relationships between individual, organizational and political adaptation or change and scientific and technological innovation or change.

Under these headings can fall research on such questions as:

· What are the implications of changing sources and modes of support for academic research and science and engineering education? How do they affect the balancing of short term and long term goals? How do they influence the populations that enter scientific or engineering careers or public support for scientific and engineering research?
· What measures can be used to gauge social or quality-of-life returns to public or private investment in research, and in science and engineering education? How can qualitative information on these issues be obtained in a systematic or reliable manner?

· How do legal, political, or economic institutions interact with developments in research and innovation? What new forms of property, human rights, and national and international organizations evolve with these changes? What new forms are needed? How can developments be channeled so as to promote social and individual well-being?

RST is interested in proposals for research examining the social, cultural, and anthropological issues associated with goal-driven research centers, such as the NSF's Engineering Research Centers or Science and Technology Centers, that require interdisciplinary and university/industry collaboration. The kinds of questions such proposals could ask include: How do centers develop successful interdisciplinary research teams in an academic, discipline-oriented culture? How do they affect their host and sponsoring institutions and the broader environments in which they exist? This work might examine the adaptation strategies of academic institutions, center leaders and faculty, and their clients. How do centers develop effective means of teamwork and internal and external communication, to reach goals relevant to industry and other social organizations? What changes in university policies for tenure and reward have developed? Have new networks evolved?

MODES OF SUPPORT

Support for SDEST projects involving one or more investigators is available through grants for research or education. Some categories are noted below:

1) **Standard Grants** include proposals for research, infrastructure or education projects. Applications may come from one or more investigators (who are not requesting full-time support as indicated in the scholars' category below). The proposals may involve additional collaborators, advisors, postdoctoral researchers, or graduate or undergraduate student assistants. Infrastructure projects may involve a variety of activities to stimulate and provide resources for new research areas, including outreach efforts. They can include development and dissemination of appropriate data bases, text retrieval systems, and graphic resources for research, educational or public use. Electronic dissemination of results from infrastructure projects is expected.

SDEST education projects on ethical and value dimensions in the interactions of engineering, science, technology and society can include such activities as national summer workshops for graduate students or faculty, or projects by professional societies to develop concentrations in ethics and the social context of science and engineering for undergraduate or graduate level science and engineering students. These are only examples of eligible topics. **Applicants should contact the program to discuss their ideas before preparing submissions for education projects.**

2) SDEST **Scholars Awards** enable individuals to undertake full time research during part or all of an academic year or summer. Normally, awards allow up to $20,000 for partial support of full time summer research and/or related costs, and up to $70,000 for partial support of one or more semesters (or quarters) of full time academic year release time and related expenses. Summer support is limited to 2/9ths academic year salary. The maximum inclusive award in this category is $150,000; this is expected to extend over at least 24 months. The program generally does not provide more than $90,000 for project support in a twelve month period. Research assistance from postdoctoral, graduate and undergraduate students, if justified, may be included within these requests. Unaffiliated and affiliated scholars are eligible for these awards.

3) **Postdoctoral and Professional Development Fellowships (PDF)** support researchers who wish to improve and expand their skills in SDEST areas. The purpose of Postdoctoral Fellowships is to enhance methodological skills in areas of predoctoral training or associated areas. The purpose of Professional Development Fellowships is to enable SDEST researchers to expand into areas relevant to their research interests for which supplemental training is needed. For instance, physical and natural scientists and engineers examining issues of research integrity might benefit from training in ethics; researchers trained in ethics, from training in areas of natural or social sciences or engineering. Historians, philosophers, or social scientists may have a research project that would benefit from training in a particular field of science or engineering, or in ethics. Applicants are encouraged to make arrangements with more than one host if needed. Postdoctoral Fellowship awards must be made through the host institution, except in unusual cases. This may require the host scholar to be the Principal Investigator, and the fellowship applicant, the co-PI, on the proposal. Professional Development Fellowship awards may be made to the home or host institution, or as an individual fellowship.

Awards can extend over two years; they are expected to support a full-time academic year of research and study. PDFs must contain both a training and a research component. In the Supplementary Documentation section, proposals must include letters from host scholars, describing their plans to work with the applicants, and from the host institutions, agreeing to provide appropriate space and facilities. Reference letters may also be submitted.

The Fellowships provide a stipend and travel allowance to the fellow and an activities support allowance to the host institution. The amount of the stipend depends on the fellow's prior earnings and work history; it can range from $36,000 (usual for postdoctoral fellowships) to $60,000, inclusive of fringes. If adequately justified, a Postdoctoral Fellowship request can be for up to two years, maximum. Professional Development awards are for one year maximum. The award also provides up to $4,000 for travel and $4,000 for the activities support allowance, annually. The activities support allowance can be used to cover direct or indirect costs associated with the fellowship; no other indirect costs are allowed.

4) **Doctoral Dissertation Research Improvement Grants** provide funds for research expenses not normally available through the student's university. More information to apply is in *Grants for Improving Doctoral Dissertation Research* (NSF01-113). The dissertation advisor is the principal investigator (PI) on these applications; the doctoral student should be listed as co-principal investigator; the award is made to the PI's university. No indirect costs are allowed; and the usual limit on an award is $8,000 for research in North America and $12,000 for work abroad. The proposal must include a letter of recommendation from the faculty advisor evaluating the student's promise as a researcher and the value and status of the proposed research. 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. The proposal should include a statement indicating whether the student has passed the preliminary qualifying exams and all course work required for the dissertation. These requirements must be met before an award will be made.

5) **Small Grants for Training and Research (SGTR)** are intended to provide sustained research opportunities for graduate students and post-doctoral fellows on important issues in SDEST. One or more senior investigators may propose a sustained course of study, research and training for these students (for from one to three years) on a subject of significance. These training programs should have a specific research theme (e.g., ethics and computers in education, or analysis of federal and state science policy efforts), and the proposal should indicate how the training will be organized around the theme. The grants can provide a maximum of $100,000 support for one postdoctoral fellow and up to three graduate students to participate each year. For projects of more than one year, PIs may retain or change the postdoc and graduate students. In addition to providing a research theme and plan, applicants must also indicate how they will recruit members of underrepresented groups into the programs and educate these students and postdocs about research ethics in the SGTR training activities. These awards are made to the university; the budget for student and post-doc support belongs in the participant support costs section of the budget form, and no indirect costs can be applied to these budget items.

III. ELIGIBILITY INFORMATION

The categories of proposers identified in the Grant Proposal Guide are eligible to submit proposals under this program announcement/solicitation.

IV. AWARD INFORMATION

Estimated program budget, number of awards and average award size/duration are subject to the availability of funds. The SDEST program budget is about $2.75 million a year.

Administration of Fixed Amount and Fellowships Awards:

SDEST Scholars Awards are fixed amount awards. These will be made on a fixed amount basis subject to the conditions of the grant instrument and this Announcement. A fixed amount award represents a predetermined amount for NSF support of the proposed research without regard to the subsequent costs of the project. Note to Institutional Research Administrators: grants awarded on a fixed amount basis are not subject to Federal cost principles as contained in OMB Circular A-21. As part of the final report required by the grant general conditions, the grantee must certify that the person months funded were actually expended. Individuals receiving fellowships or fixed amount awards to individuals must be U.S. citizens or U.S. nationals or have permanent U.S. resident status.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Full Proposal:

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 Web Site 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.

NSF allows all proposals a project description section of up to 15 pages. To provide reviewers adequate information, proposals involving interviews or surveys can include up to three additional pages at the end of the description, titled "Protocols." Similarly, proposals can add up to two additional pages to the end of the section, titled "Dissemination Plan." Here, investigators should identify the individuals or groups (researchers, educators, policy officials, others) with whom they intend to communicate project information and results, and specify how they will do so. They should specify the significance their findings will have for these audiences. Only these additions are allowed. With them, the project description section can total 20 pages.

SDEST expects applicants to pay careful attention to the legibility of their proposals. While NSF guidelines allow 10-point type, many fonts this size produce very small text, and single-spaced documents can become difficult to read. SDEST 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 solicitation number (NSF-01-152) in the program announcement/solicitation block on the proposal Cover Sheet (NSF Form 1207). 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 is not required in proposals submitted under this Program Announcement.

Indirect Cost (F&A) Limitations: SDEST fellowships and dissertation awards do not allow indirect costs. Funds for graduate students and postdoctoral fellows in SDEST Small Grants for Training and Research are also not subject to indirect costs.

C. Deadline/Target Dates

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

Full Proposals: February 1 of each year, August 1 of each year

D. FastLane Requirements

Proposers are required to prepare and submit all proposals for this Program Announcement 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 1-800-673-6188 or e-mail fastlane@nsf.gov.

Submission of 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 certifications within five working days following the electronic submission of the proposal. 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.

Proposals will be reviewed against the following general 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 judgements.

What is the intellectual merit of the proposed activity?
How important is the proposed activity to advancing knowledge and understanding within its own field or across different fields? How well qualified is the proposer (individual or team) to conduct the project? (If appropriate, the reviewer will comment on the quality of the prior work.) To what extent does the proposed activity suggest and explore creative and original concepts? How well conceived and organized is the proposed activity? Is there sufficient access to resources?

What are the broader impacts of the proposed activity?
How well does the activity advance discovery and understanding while promoting teaching, training, and learning? How well does the proposed activity broaden the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.)? To what extent will it enhance the infrastructure for research and education, such as facilities, instrumentation, networks, and partnerships? Will the results be disseminated broadly to enhance scientific and technological understanding? What may be the benefits of the proposed activity to society?

Principal Investigators should address the following elements in their proposal to provide reviewers with the information necessary to respond fully to both of the above-described NSF merit review criteria. NSF staff will give these elements careful consideration in making funding decisions.

Integration of Research and Education
One of the principal strategies in support of NSF's goals is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions provide abundant opportunities where individuals may concurrently assume responsibilities as researchers, educators, and students and where all can engage in joint efforts that infuse education with the excitement of discovery and enrich research through the diversity of learning perspectives.

Integrating Diversity into NSF Programs, Projects, and Activities
Broadening opportunities and enabling the participation of all citizens -- women and men, underrepresented minorities, and persons with disabilities -- is essential to the health and vitality of science and engineering. NSF is committed to this principle of diversity and deems it central to the programs, projects, and activities it considers and supports.

Additional Review Criteria
EVS is interested in whether the project being proposed will add to general understanding of ethical and value dimensions in the interactions of science, technology, and society. RST is interested in whether a project will add to understanding about knowledge production and innovation, and about the role of policy in knowledge production and innovation. Further delineation of these criteria for SDEST include:

· fit of subject with theoretical and empirical issues of importance in the field;
· grounding in theory and literature;
· well-conceived methodologies, including, as applicable, reliable methods of empirical research;
· relevance to policy, practice, or action;
· academic outreach, including members of underrepresented groups, and
· utility and dissemination to decision makers or an important spectrum of audiences.

Investigators should note that proposals are evaluated not only by specialists in their research area, but also by generalists concerned with how well the proposal will meet these additional criteria. Proposals need to be written with this broader audience in mind. Applicants should consider carefully their use of jargon and highly specialized or currently fashionable terminology. Where needed, such terms should be briefly explained.

A summary rating and accompanying narrative will be completed and signed 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.

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 Mail 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.

NSF is striving to be able to tell applicants whether their proposals have been declined or recommended for funding within six months for 70 percent of proposals. 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 its 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 Web site 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 Web site 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 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 the expiration of an award, 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 an electronic project reporting system, available through FastLane. 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 Societal Dimensions of Engineering, Science, and Technology should be made to:

- Rachelle D. Hollander, SDEST-EVS, RST, Program Director, SBE, SES, 995, telephone: 703-292-7272, e-mail: rholland@nsf.gov.

- John Perhonis, SDEST-Dissertation Proposals, Program Director, SBE, SES, 995, telephone: 703-292-7279, e-mail: jperhoni@nsf.gov.

- Gayle Laws, SDEST, Program Assistant, SBE, SES, 995, telephone: 703-292-7292, e-mail: glaws@nsf.gov.

- Fast Lane Help, SBE, SES, e-mail: sesfl@nsf.gov.

For questions related to the use of FastLane, contact:

- Geri Farves, Program & Technology Specialist, SBE, SES, 995, telephone: 703-292-7309, e-mail: gfarves@nsf.gov.

- Philip X. Johnson, Computer Specialist, SBE, BCS/SES, 995, telephone: 703-292-7312, e-mail: pxjohnso@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 web site 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.

The Home Page for the SDEST program has links to web sites from projects it has supported, suggestions for applicants, and other program announcements at NSF. SDEST encourages you to visit its Home Page at http://www.nsf.gov/sbe/ses/sdest/.

A program relevant to SDEST investigators is Science and Technology Studies. It supports historical, philosophical, and social research about the character and development of science and technology, the nature of theory and evidence in different fields, and the social and intellectual contruction of science, engineering, and technology. The Home Page is http://www.nsf.gov/sbe/ses/sts/.

A number of interdisciplinary research programs may be found at the Crosscutting Programs Home Page: http://www.nsf.gov/home/crssprgm/. Applicants interested in developing educational projects should become familiar with programs in NSF's Education and Human Resources Directorate, at http://www.nsf.gov/home/ehr/.

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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.

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