# Cooperative Studies Of The Earth's Deep Interior (CSEDI)

#### **Program Solicitation**

NSF 04-593 Replaces Document NSF 95-155



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

September 20, 2004

August 25, 2005

August 25, annually

thereafter

### **SUMMARY OF PROGRAM REQUIREMENTS**

# **General Information**

# **Program Title:**

Cooperative Studies Of The Earth's Deep Interior (CSEDI)

# Synopsis of Program:

The Division of Earth Sciences (EAR) invites the submission of proposals for collaborative, interdisciplinary studies of the Earth's interior within the framework of the community-based initiative known as Cooperative Studies of the Earth's Deep Interior (CSEDI). Funding will support basic research on the character and dynamics of the Earth's mantle and core, their influence on the evolution of the Earth as a whole, and on processes operating within the deep interior that affect or are expressed on the Earth's surface.

Projects may employ any combination of field, laboratory, and computational studies with observational, theoretical, or experimental approaches. Support is available for research and research infrastructure through grants and cooperative agreements awarded in response to investigator-initiated proposals from U.S. universities and other eligible institutions. Multidisciplinary work is required. EAR will consider co-funding of projects with other agencies and supports international work and collaborations.

# Cognizant Program Officer(s):

• Robin Reichlin, Program Director, Geophysics, Directorate for Geosciences, Division of Earth Sciences, 785 S,

telephone: (703) 292-8556, fax: (703) 292-9025, email: rreichli@nsf.gov

• Sonia Esperanca, Program Director, Petrology and Geochemistry, Directorate for Geosciences, Division of Earth Sciences, 785 S, telephone: (703) 292-8554, email: sesperan@nsf.gov

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

47.050 --- Geosciences

# **Eligibility Information**

- Organization Limit: None Specified.
- PI Eligibility Limit: None Specified.
- Limit on Number of Proposals: None Specified.

### **Award Information**

- Anticipated Type of Award: Standard or Continuing Grant or Cooperative Agreement
- Estimated Number of Awards: 5 to 10
- Anticipated Funding Amount: \$2,000,000

### **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: Not Applicable.
- Other Budgetary Limitations: Other budgetary limitations apply. Please see the full text of this solicitation for further information.

#### C. Due Dates

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

September 20, 2004 August 25, 2005 August 25, annually thereafter

#### **Proposal Review Information**

• **Merit Review Criteria:** National Science Board approved criteria. Additional merit review considerations apply. Please see the full text of this solicitation for further information.

#### **Award Administration Information**

• Award Conditions: Standard NSF award conditions apply.

 Reporting Requirements: Additional reporting requirements apply. Please see the full text of this solicitation for further information.

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#### I. INTRODUCTION

CSEDI is a community initiative originally organized by members of the SEDI (Studies of the Earth's Deep Interior) committee of the IUGG (International Union of Geodesy and Geophysics) and the SEI (Studies of the Earth's Interior) committee of the American Geophysical Union. A science plan was developed, and later updated (2004), with broad community input and support and reflects the scientific objectives of the initiative. This initiative grew out of the realization that the most important problems related to the Earth's interior need a multi-disciplinary effort that brings to bear in a coherent way creative and imaginative thinking about the state and dynamics of the Earth's interior, along with the utilization of the most advanced computational, experimental, analytical, and observational techniques. Ultimately, the goal of such efforts is to determine as quantitatively as possible how the Earth's interior works, and how processes in the Earth's deep interior control the structure and evolution of the Earth as a whole.

Societally relevant applications of CSEDI's research are wide-ranging, and help improve our understanding of natural and anthropogenic hazards; global climate change; and water, mineral, and energy resources.

#### II. PROGRAM DESCRIPTION

The opportunity for rapid progress in this research activity derives largely from the timely coincidence of advances in several disciplines. Global-scale seismic imaging of the Earth's deep interior provides insights into the convective and thermal patterns in the mantle and core. Advances in high pressure materials research allow for direct laboratory investigations of the pressure-temperature-composition and mechanical properties of the deep interior. Isotopic measurements of crustal and mantle-derivative rocks reveal chemical signatures that indicate recycling of the deep interior. Modeling of the Earth's dynamo has illuminated possible relations between convection in the Earth's core and structures in the lowermost mantle. Geodetic techniques have provided new probes of the deep interior. Advances in computational techniques allow complex simulations of flow and convection in the mantle and core. Individually these are all important advances, but the aim of this funding opportunity is to link these advances into coordinated and integrated studies that will allow significant new insights into an understanding of the processes operating in the deep interior and how they govern the evolution of the surface of the Earth.

The 2004 CSEDI Science Plan (www.csedi.org) outlines a framework for understanding 'Circulation in the Deep Earth' over the coming decade. New technologies available to the community, coupled with unprecedented amounts of observational data call for a bold approach to future CSEDI research. CSEDI can realistically aim for a broad understanding of Earth's inner dynamics, incorporating core evolution, mantle convection, the driving forces of plate tectonics, and the interaction between the interior, oceans and atmosphere. CSEDI provides a framework for capitalizing on the new observational, experimental and theoretical advances made possible by the current development of major seismological, experimental and computational facilities. Within the decade, the field is poised to make major advances in understanding:

- Cycling of water and carbon through Earth's deep interior
- Operation and evolution of the geomagnetic dynamo
- Melting and other phase transitions in the deep mantle and core
- Deep mantle structure, temperature and composition
- Evolution, dynamics and rotation of the inner core
- Chemical and heat exchange between the core and mantle, and between the mantle and the surface.

The 2004 CSEDI Science Plan organized these emerging research directions into three broad themes for advancing understanding of the Earth as a planet, and connecting Earth-interior processes to the surface. First, quantifying the deep water and carbon cycles would provide a crucial link in understanding how the oceans and atmosphere – and the biosphere they sustain – are linked to the interior, helping to clarify how Earth's surface environment has evolved over geological time. Second, characterizing the deep-Earth engine would provide insight into the forces driving geological processes, including mountain building, earthquakes, volcanoes and plate tectonics. Third, understanding the planetary evolution of the Earth, the path it took to the present state, offers unique insights into the ways by which planets in general – and our own in particular – originate and develop.

The above themes are intended to describe the exciting frontiers for deep earth research in a broad sense, and are not intended to be prescriptive in limiting CSEDI proposal topics.

This Program Solicitation provides support for truly integrated, multi-disciplinary studies so that accelerated progress can be made on these fundamental problems of the Earth's deep interior. Emphasis will be placed on cooperative, multi-disciplinary efforts that are fully integrated and for which the value of the collaboration exceeds the contributions from individual studies. In recognition of the potential and of the impediments to in-depth collaboration among component disciplines, the project description, budget, and work schedule should emphasize the specific steps and mechanisms required to assure successful integration at all stages of the research.

#### III. ELIGIBILITY INFORMATION

The categories of proposers identified in the Grant Proposal Guide are eligible to submit proposals under this program announcement/solicitation. Proposals will generally be accepted from colleges, universities, and other institutions in the United States with formal research programs in the areas supported by EAR. Colleges and universities designated as Undergraduate or Predominately Undergraduate Institutions should consult the guidelines described in Research in Undergraduate Institutions.

Proposals may involve multidisciplinary groups of scientists at one institution or collaborative efforts of associated researchers from different institutions working on coordinated projects.

Proposals that have been declined are not eligible for resubmission for one year and must be substantially revised to be considered.

### IV. AWARD INFORMATION

\$2 Million is expected to be available annually for this competition. Five to ten new awards are expected each year.

#### 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: <a href="http://www.nsf.gov/cgi-bin/getpub?gpg">http://www.nsf.gov/cgi-bin/getpub?gpg</a>. 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.

Interested investigators may consult the 2004 update to the CSEDI Science Plan to ascertain that the proposal falls within the general framework outlined therein. The document was prepared by the CSEDI Coordinating Committee following the CSEDI Science Plan Workshop held in February, 2004. A copy of the document can be accessed electronically at <a href="https://www.csedi.org">www.csedi.org</a>. Hardcopies are also available from Guy Masters, Institute of Geophysics and Planetary Physics, MC 0225, Scripps Institution of Oceanography, UC San Diego, La Jolla, CA 92093-0225. Dr. Masters can be contacted by email at <a href="mailto:gmasters@ucsd.edu">gmasters@ucsd.edu</a>.

Proposal Titles should follow the format "CSEDI: title" for single institution proposals, or "CSEDI Collaborative Research: title" for collaborative proposals with more than one institution.

For proposals with more than three investigators, one additional page will be allotted for the "Results of Prior Support" section of the Project Description.

**Data Policy:** Principal investigators are required to adhere to the EAR Data Policy available on the NSF website (www.geo. nsf.gov/ear/EAR\_data\_policy\_204.doc). Proposals should include a statement describing how the data policy requirements will be met.

Proposers are reminded to identify the program announcement/solicitation number (04-593) 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.

# **Other Budgetary Limitations:**

Requests for scientific instrumentation and equipment included in standard research proposals generally should not exceed \$50,000. Requests in excess of this amount usually require a separate proposal directly to the Instrumentation and Facilities Program. Contact the Program Director for further details.

#### C. Due Dates

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

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

September 20, 2004

August 25, 2005

August 25, annually thereafter

The deadline for proposal submission is September 20, 2004. The subsequent due date will be August 25, 2005. Thereafter, the due date will be August 25th, annually. Proposals must be submitted within an acceptance window from two weeks before each deadline to the deadline date (by 5 p.m. proposer's local time on the deadline date). All proposals must be submitted through FastLane. Proposals submitted either before or after the acceptance window will be returned without review.

#### 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: https://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.

# **Additional Review Criteria:**

Additional factors in the evaluation process will include the demonstrated synergism among the various disciplinary components involved in the proposed research, and likelihood of making accelerated progress on major questions related to understanding the Earth's deep interior.

# **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 and/or panel review.

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

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 proposers whether their proposals have been declined or recommended for funding within six months. The time interval begins on the closing date of an announcement/solicitation, or the date of proposal receipt, whichever is later. 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 <a href="http://www.nsf.gov/cgi-bin/getpub?gpm">http://www.nsf.gov/cgi-bin/getpub?gpm</a>. 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 <a href="http://www.gpo.gov">http://www.gpo.gov</a>.

### 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.

**Data Policy:** Principal investigators are required to adhere to the EAR Data Policy available on the NSF website. Final reports for all awards should include a statement describing how the data policy requirements have been met.

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.

Pls 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. Pls 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:

- Robin Reichlin, Program Director, Geophysics, Directorate for Geosciences, Division of Earth Sciences, 785 S, telephone: (703) 292-8556, fax: (703) 292-9025, email: rreichli@nsf.gov
- Sonia Esperanca, Program Director, Petrology and Geochemistry, Directorate for Geosciences, Division of Earth Sciences, 785 S. telephone: (703) 292-8554, email: sesperan@nsf.gov

For questions related to the use of FastLane, contact:

None Specified.

### 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 <a href="http://www.nsf.gov/cgi-bin/getpub?gp">http://www.nsf.gov/cgi-bin/getpub?gp</a>. 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 <a href="http://www.nsf.gov/home/ebulletin">http://www.nsf.gov/home/ebulletin</a>, 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:**

- Earth Sciences: Instrumentation and Facilities (NSF 04-507)
- EarthScope: Science, Education and Related Activities for the USArray, San Andreas Fault Observatory at Depth (SAFOD), and Plate Boundary Observatory (PBO) (NSF 04-589)
- Information Technology Research for National Priorities (NSF 04-012)
- International Opportunities for Scientists and Engineers (NSF 03-559)
- Research Experiences for Undergraduates (NSF 04-584)
- Research in Undergraduate Institutions (NSF 00-144)
- Continental Dynamics (NSF 04-512)
- Earth Sciences Research at the National Science Foundation (NSF 03-590)
- Collaboration in Mathematical Geosciences (NSF 04-508)
- Opportunities for Enhancing Diversity in the Geosciences (OEDG) (NSF 04-590)
- Marine Geology and Geophysics

# ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) funds research and education in most fields of science and engineering. Awardees 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, although some programs may have special requirements that limit eligibility.

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

• For General Information (703) 292-5111

(NSF Information Center):

• TDD (for the hearing-impaired): (703) 292-5090

• To Order Publications or Forms:

Send an e-mail to: pubs@nsf.gov

or telephone: (703) 292-7827

• To Locate NSF Employees: (703) 292-5111

#### PRIVACY ACT AND PUBLIC BURDEN STATEMENTS

The information requested on proposal forms and project reports is solicited under the authority of the National Science Foundation Act of 1950, as amended. The information on proposal forms will be used in connection with the selection of qualified proposals; 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 collection is 3145-0058. Public reporting burden for this collection of information is estimated to average 120 hours per response, including the time for reviewing instructions. Send comments regarding 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.

OMB control number: 3145-0058.



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