This solicitation has been archived and replaced by NSF 23-539.

Cultural Transformation in the Geoscience Community (CTGC)

PROGRAM SOLICITATION
NSF 22-562

REPLACES DOCUMENT(S):
NSF 16-516

National Science Foundation

Directorate for Geosciences

Letter of Intent Due Date(s) ***(required)*** (due by 5 p.m. submitter's local time):

March 14, 2022

(required only for Implementation Grants)

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

May 02, 2022

IMPORTANT INFORMATION AND REVISION NOTES

This solicitation is a follow on to GEO Opportunities for Leadership in Diversity (GOLD) (NSF 16-516)

For this new solicitation

- Letters of intent are required for implementation projects.
- Expected funding level has changed.
- PI eligibility has changed.
- Calls for implementation projects and planning grants only. An Ideas Lab will not be run through this solicitation.

Any proposal submitted in response to this solicitation should be submitted in accordance with the revised *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) (NSF 22-1), which is effective for proposals submitted, or due, on or after October 4, 2021.

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

Cultural Transformation in the Geoscience Community (CTGC)

Synopsis of Program:

Our future sustainability and prosperity will require a transdisciplinary geoscience workforce that reflects the nation's diversity and has the capacity to develop innovative solutions necessary to meet future environmental and societal challenges. The Geosciences Directorate (GEO) proposes a novel approach to simultaneously address two major challenges that require immediate action, (1) foster a just, equitable and inclusive geoscience research community that reflects the diversity of the United States and (2) develop a workforce with the skills required to understand how the Earth system can continue to sustain society. Cultural Transformation in the Geoscience Community (CTGC) responds to the desire of individuals from a wide range of backgrounds to make a difference in their world and supports the creative power of truly diverse groups to make major strides in Earth System Science in service of humanity. CTGC aims at engaging institutions that support Black, Indigenous, People of Color (BIPOC), persons with disabilities, LGBTQIA+, and other individuals from marginalized/ minoritized groups, to help promote career advancement, and advance Earth system science. CTGC builds on tenets of NSF programs like GOLD (Geoscience Opportunities for Leadership in Diversity), ADVANCE and NSF INCLUDES that lead to environments that foster inclusion and belonging. The program will support projects that are based on geoscience education scholarship, mentorship, allyship, equity, anti-racist and anti-harassment practices, and increasing accessibility. CTGC projects will establish sustainable and long-term STEM learning and research ecosystems that connect individuals' academic training with informal and work-based training opportunities through strong collaborative

relationships and career-pathway mapping among schools, informal learning environments, local communities, private sector partners, and university and research partners. The program will support planning grants and implementation projects. Planning grants are intended to build capacity in the geoscience community to undertake the activities necessary to establish place-based and community-driven Earth system research projects. Implementation projects will build cohorts of individuals at specific career stages that will design inclusive research programs, conduct community engagement to identify research needs, or participate in community-driven research projects. CTGC projects will promote innovative approaches to Earth system sciences and will foster authentic and equitable collaborations between scientists and community members with the goal of addressing issues that contribute to the sustainability of the community.

Cognizant Program Officer(s):

Please note that the following information is current at the time of publishing. See program website for any updates to the points of contact.

- Bernard Grant, OAD/GEO, telephone: (703) 292-4699, email: geogold@nsf.gov
- Brandon Jones, OAD/GEO, telephone: (703) 292-8500, email: geogold@nsf.gov
- Amanda S. Adams, AGS/GEO, telephone: (703) 292-8521, email: geogold@nsf.gov
- Aisha Morris, EAR/GEO, telephone: (703) 292-7081, email: geogold@nsf.gov
- Elizabeth L. Rom, OCE/GEO, telephone: (703) 292-7709, email: geogold@nsf.gov

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

- 47.050 --- Geosciences

Award Information

Anticipated Type of Award: Standard Grant or Continuing Grant

Estimated Number of Awards: 11

NSF expects to make up to 11 awards through this competition, with up to 3 awards made for implementation grants and up to 8 awards being made for planning grants.

Anticipated Funding Amount: $10,000,000

Implementation grants have a limit of $1.5M per year for up to 5 years, planning grants have a limit of $120,000 per year for up to 2.5 years. Implementation grants are eligible for renewal for an additional 5 years pending availability of funds and favorable review.

Eligibility Information

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Institutions of Higher Education (IHEs) - Two- and four-year IHEs (including community colleges) accredited in, and having a campus located in the US, acting on behalf of their faculty members. Special Instructions for International Branch Campuses of US IHEs: If the proposal includes funding to be provided to an international branch campus of a US institution of higher education (including through use of subawards and consultant arrangements), the proposer must explain the benefit(s) to the project of performance at the international branch campus, and justify why the project activities cannot be performed at the US campus.
- Non-profit, non-academic organizations: Independent museums, observatories, research labs, professional societies and similar organizations in the U.S. associated with educational or research activities.

Who May Serve as PI:

There are no restrictions or limits.

Limit on Number of Proposals per Organization:

An organization may serve as sole submitting organization or as lead organization on only one submission per competition, regardless of track, but may serve as the non-lead organization of a collaborative project more than once per competition. Additional eligibility requirements are described later in the solicitation.

Potential PIs are advised to contact their institutional office of research regarding processes used to select proposals for submission.

Limit on Number of Proposals per PI or co-PI:

A Principal Investigator may serve in the role of PI or Co-PI on only one proposal per competition if they are at the sole-submitting organization or the lead organization of a collaborative project but may serve as the Co-PI for a non-lead organization of a collaborative project more than once per competition.

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **Letters of Intent:** Submission of Letters of Intent is required. Please see the full text of this solicitation for further information.
- **Preliminary Proposal Submission:** Not required
- **Full Proposals:**
    - Full Proposals submitted via FastLane: *NSF Proposal and Award Policies and Procedures Guide* (PAPPG) guidelines apply. The complete text of the PAPPG is available electronically on the NSF website at: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg.
    - Full Proposals submitted via Grants.gov: *NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov* guidelines apply (Note: The *NSF Grants.gov Application Guide* is available on the Grants.gov website and on the NSF website at: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide).

B. Budgetary Information

- **Cost Sharing Requirements:**

  Inclusion of voluntary committed cost sharing is prohibited.

- **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

- **Letter of Intent Due Date(s)** ***(required)*** (due by 5 p.m. submitter's local time):

  March 14, 2022

  (required only for Implementation Grants)

- **Full Proposal Deadline(s)** (due by 5 p.m. submitter's local time):

  May 02, 2022

Proposal Review Information Criteria

Merit Review Criteria:

National Science Board approved criteria. Additional merit review criteria apply. Please see the full text of this solicitation for further information.

Award Administration Information

Award Conditions:

Standard NSF award conditions apply.

Reporting Requirements:

Standard NSF reporting requirements apply.

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I. INTRODUCTION

Cultural Transformation in the Geoscience Community (CTGC) is a program in the Directorate for Geosciences to support institutional transformation that leads to the development of STEM learning and research ecosystems focused on inclusivity and broadening participation leadership development. Proposals are welcome in any geoscience research fields and related disciplines.

Society's sustainability and prosperity require a transdisciplinary geoscience workforce that reflects the nation's diversity and has the capacity to develop innovative solutions necessary to meet future environmental and societal challenges. CTGC seeks to foster a geoscience research community that reflects the diversity of the United States and to develop a workforce with the skills required to understand how the Earth system can continue to sustain society. Participants in this program will grapple with Earth system predictability and climate change, tackling complex problems such as the nexus of disease spread related to environmental shifts, sea level rise and the future of the coastal built environment, and changes in land use that will impact biodiversity. Participants will address societal issues related to global change using a systems approach, with individuals and local community engagement at the center of the endeavor. The geosciences lend themselves to transdisciplinary approaches that observe the Earth using holistic models and technology that integrates ways of knowing. This new program builds on tenets of NSF programs like GOLD (Geoscience Opportunities for Leadership in Diversity), ADVANCE and NSF INCLUDES, that lead to environments that foster inclusion and belonging. The new program will draw on learning ecosystems to tackle multidimensional and transdisciplinary questions that require different perspectives. To achieve this, academia and research institutions need to welcome, support, and fully include individuals from groups that have been historically excluded in laboratories, research facilities, or any other place where research and related activities take place; and they need to have authentic community partnerships to co-create knowledge and find solutions to society's most pressing challenges. Research shows that progress may be made towards justice, equity, diversity, and inclusion in the geosciences through community-based research, participatory research, and place-based research (Harris et al. 2021). These research approaches invite broader participation and demand community engagement. The solicitation offers funding for planning grants and for implementation projects.

II. PROGRAM DESCRIPTION

The CTGC funding opportunity invites creative proposals to foster an innovative and inclusive geoscience community that reflects the diversity of the United States and is ready and well prepared to understand how the Earth system can continue to sustain society and propose solutions to the complex challenges society is facing due to climate and environmental change. Proposals are expected to be rooted in evidence-based best practices on justice, equity, diversity, and inclusion and learning ecosystems to tackle multidimensional and transdisciplinary questions that require different perspectives. Proposals will need to show how these perspectives will not only be brought to the scientific enterprise but also how they ensure that participants from groups that were historically excluded will be welcomed, supported, and fully included in the laboratories, research facilities, or any other place where research and related activities take place. Proposals are invited that will lead to institutional transformation through the development of STEM learning and research ecosystems focused on inclusivity and broadening participation and leadership development.

The Cultural Transformation in the Geoscience Community (CTGC) is seeking proposals that will:

1. Establish sustainable and long-term STEM learning and research ecosystems that will connect individuals' academic training with informal and work-based training opportunities through strong collaborative relationships and career-pathway mapping among schools, informal learning environments, private sector partners, and university and research partners.
2. Support the professional development of cohorts of individuals at different career stages through transition points, address areas where data demonstrates failure to engage or alienation from the research ecosystem of historically marginalized groups. Those engaged in this program will be proficient Earth system science team members whose contributions are cultivated in inclusive learning and workspaces.

Specific expectations about the cohort model:

1. Projects are asked to build cohorts of individuals at different career stages: postbaccalaureate, graduate students, postdocs, educators or researchers, or administrators (or equivalent). Projects should include cohorts from at least two of the stages listed above.
2. Each cohort will include at least six individuals that will participate in a wide range of professional development opportunities appropriate to their career stage.
3. The activities that the cohorts will undertake should include scientific and leadership skill building that sets them up to be agents of change.
4. The projects should use asset-based models that focus on strengths of individuals from historically minoritized/marginalized backgrounds and holistic mentoring.
5. There should be consideration of the various types of learning and research practices within the research community (e.g., individualism vs collectivism or use of Traditional Ecological Knowledge) and appropriate evaluation methods to track the impact of these diverse approaches and styles on both the research conducted and on engaging a more diverse set of scholars.
6. The projects should focus on creating a culture of sustained and measured educational and professional development.

The overall hypothesis of the program is that the newly formed cohorts of learners and practitioners will address societal issues related to global change using a systems approach, with individuals and local community engagement at the center of the endeavor. This program aims to disrupt and reverse colonizing approaches and will foster authentic and equitable collaborations between scientists and community members with the goal of addressing issues that contribute to the sustainability of the community.

The program welcomes proposals that engage and entrain cohorts in (1) designing inclusive research programs (2) conducting community engagement to identify research needs, or (3) participating in established research projects that have been designed with the local community to address an issue caused by global change, including those that seek to develop or pilot solutions. Cohorts are expected to develop the skills needed to conduct convergent science in new ways, including co-creation of scientific protocols, promoting elements of engaged research, decolonizing science, or supporting community-driven science. The knowledge and experiences of those who have been impacted by enduring societal inequities should be at the center of the proposed projects. These

individuals should also play a critical role, including in project leadership and research positions, conceptualization of the proposal, decision-making processes, and the interpretation and dissemination of evidence and research results.

The proposed work should provide positive outcomes for the individuals and communities engaged. The program aims at supporting institutions that support Black, Indigenous, People of Color (BIPOC), persons with disabilities, LGBTQIA+, and other individuals from marginalized/minoritized groups to help promote career advancement, augment departmental/institutional credibility and advance Earth system science. Projects offer an opportunity to tap the nation's diverse talent pool and broaden participation in science and engineering. NSF is particularly interested in increasing the numbers of persons who have been historically excluded due to race, gender or ability in professional experiences related to the geosciences. CTGC projects are strongly encouraged to involve individuals who are members of the following communities that have been underrepresented in STEM: Blacks and African Americans, Hispanics and Latinos, American Indians, Alaska Natives, and Native Hawaiians or other Pacific Islanders. When designing recruitment plans, CTGC projects are also encouraged to consider students who have disabilities as well as veterans of the U.S. Armed Services.

This solicitation seeks to adapt the STEM Ecosystem concept to a *geoscience learning ecosystem (GLEs)* model for education, training, and workforce development. GLEs are formed through the relationships, collaborations and connections of various institutions, entities, and groups with an eye towards creating supportive and fertile educational environments for students and researchers. For further guidance on the development of learning ecosystem models, please reference Manning, C.L.B. 2020.

Projects should add to the knowledge base of broadening participation and co-creation of science through research (both fundamental and applied) and practice, such as, but not limited to building theory; developing methods; testing approaches and interventions; assessing the potential, efficacy, effectiveness, and scalability of approaches and interventions; establishing, cultivating and assessing authentic partnerships; changing institutional, organizational, and structural practices and policies; and/or focusing on affective, behavioral, cultural, social components, and implications.

Proposals that include community engagement and partnerships with communities should either (1) have already established and agreed upon partnerships, documented with the appropriate letters of collaboration and budget allocations, or (2) provide a clear plan for community engagement and partnership building as part of the first year of the grant. Grants might be awarded in annual increments to ensure PIs meet the goals set for community engagement and partnerships. Both options must follow best practices in community partnerships, especially if partnerships are to be established with BIPOC or other historically exploited communities such as but not limited to Tribes, Native American or Alaskan or Hawai'ian Native communities. Successful proposals will have ensured to have the appropriate expertise on the PI team to conduct community-based research, participatory research, or place-based research. Sufficient funding should be allocated in the budget to support mutually beneficial and respectful interactions that not only produce meaningful research outcomes but also focuses on the concerns of communities, including questions of data sovereignty, co-authorship, or co-review of project outcomes.

Funding Tracks

The solicitation offers two funding tracks, for (1) Planning Grants and for (2) Implementation Projects.

1. Planning Grants are intended to build capacity in the geoscience community to undertake the activities necessary to establish future CTGC implementation projects or similar activities. NSF recognizes that institutions may identify an important, complex challenge to address, but may not have the full complement of skills and expertise needed to successfully address the challenge. Planning Grants can be used to support team formation activities (e.g., filling gaps in expertise); develop and nurture relationships with potential partners; and access specialized frameworks or resources needed to better develop an Implementation Project. Planning Grants are suitable for institutions that would like to prepare to host an Implementation Project and ensure that their institution is fully inclusive and welcoming to all project participants, by training staff, conducting climate surveys, or to establish collaborations and partnerships. Planning Grants should include plans for the expansion, sustainability, and scale of their activities. Proposers funded through this solicitation may use the Planning Grant funding to organize catalytic activities (including, but not limited to, workshops and conferences) that can help collaborating organizations to crystallize their broadening participation vision and to develop an Implementation Project proposal. Planning Grants should include a small pilot program and adequate evaluation. Planning Grants should be for 24 to 30 months. *Having a Planning Grant awarded is not a guarantee of subsequent funding for an Implementation Project.* A Planning Grant is not a prerequisite for future CTGC competitions.

   Please note that the Planning Grant proposals described in this solicitation are a solicitation-specific project category and are separate and distinct from the type of proposal described in Chapter II.E.1 of the PAPPG. When preparing a Planning proposal in response to this solicitation, the "Research" type of proposal should be selected in the proposal preparation module in FastLane or Grants.gov.

2. Implementation Projects.

   Institutions that have shown to be supportive of Black, Indigenous, People of Color (BIPOC), persons with disabilities, LGBTQIA+, and other individuals from marginalized/minoritized groups to help promote career advancement and/or institutions that have shown expertise in training the next generation of geoscientists in community-based research, participatory research, or place-based research are welcome to submit an Implementation Project proposal. In particular, Minority Serving Institutions (MSIs) are encouraged to submit Implementation Projects. Proposers should demonstrate how they have established inclusive and safe research environments and should have established authentic mutually beneficial partnerships with local communities or other collaborators. Proposed projects should specify the cohorts that will be formed and entrained, the planned professional development opportunities, appropriate to their career stages, as well as the ways communities are engaged in authentic and equitable partnerships to address environmental challenges. Implementation Project proposals can be for up to 60 months.

   Competitive Planning Grants and Implementation Project proposals will be based on inclusive research and training principles and prioritize strategic partnerships. Successful projects will be rooted in mentorship, allyship, equity, anti-racist and anti-harassment practices, and increasing accessibility. Project leaders need to show their commitment to foster research and learning environments with a strong sense of belonging and safety for all. Proposals seeking funds to support an existing activity must clearly demonstrate the effectiveness of current activities and identify the gaps that would be addressed if additional resources were made available.

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III. AWARD INFORMATION

The program expects to offer approximately 11 awards, with the average total award size expected to be in the $120,000/yr range for planning grants, and 1.5M/yr for implementation grants. The duration of planning grants awards will be up to 30 months. The duration of implementation grants will be a maximum of 60 months. Estimated program budget, number of awards and average award size/duration are subject to the availability of funds.

IV. ELIGIBILITY INFORMATION

Who May Submit Proposals:

Proposals may only be submitted by the following:

- Institutions of Higher Education (IHEs) - Two- and four-year IHEs (including community colleges) accredited in, and having a campus located in the US, acting on behalf of their faculty members. Special Instructions for International Branch Campuses of US IHEs: If the proposal includes funding to be provided to an international branch campus of a US institution of higher education (including through use of subawards and consultant arrangements), the proposer must explain the benefit(s) to the project of performance at the international branch campus, and justify why the project activities cannot be performed at the US campus.
- Non-profit, non-academic organizations: Independent museums, observatories, research labs, professional societies and similar organizations in the U.S. associated with educational or research activities.

Who May Serve as PI:

There are no restrictions or limits.

Limit on Number of Proposals per Organization:

An organization may serve as sole submitting organization or as lead organization on only one submission per competition, regardless of track, but may serve as the non-lead organization of a collaborative project more than once per competition. Additional eligibility requirements are described later in the solicitation.

Potential PIs are advised to contact their institutional office of research regarding processes used to select proposals for submission.

Limit on Number of Proposals per PI or co-PI:

A Principal Investigator may serve in the role of PI or Co-PI on only one proposal per competition if they are at the sole-submitting organization or the lead organization of a collaborative project but may serve as the Co-PI for a non-lead organization of a collaborative project more than once per competition.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Letters of Intent *(required)*:

Letters of Intent are required for implementation projects only.

Any implementation proposals received for projects that did not submit a Letter of Intent by the required deadline will be returned without review. The Letter of Intent should include the name and organizations of the PI, Co-PIs and other key personnel who will be involved in the project. If the project will be leveraging a named research facility or program (e.g., NCAR, LSAMP), this facility/program should be identified. A brief synopsis (**less than 2,500 characters**) of the project design and activities to be undertaken should be provided. If more than one Letter of Intent is received from an organization in which they are the lead of a collaborative project, they will be asked to make a decision as to which proposal will move forward. Letters of Intent are not binding but are used by NSF program staff to gauge the number of proposals likely to be submitted and to identify the types of reviewer expertise that will be required.

Letter of Intent Preparation Instructions:

When submitting a Letter of Intent through FastLane in response to this Program Solicitation please note the conditions outlined below:

- Submission by an Authorized Organizational Representative (AOR) is required when submitting Letters of Intent.
- A Minimum of 0 and Maximum of 4 Other Senior Project Personnel are permitted
- A Minimum of 0 and Maximum of 4 Other Participating Organizations are permitted
- Submission of multiple Letters of Intent is not permitted

Full Proposal Preparation Instructions: Proposers may opt to submit proposals in response to this Program Solicitation via FastLane or Grants.gov.

- Full proposals submitted via FastLane: Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the general guidelines contained in the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG). The complete text of the PAPPG is available electronically on the NSF website at: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg. Paper copies of the PAPPG may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov. Proposers are reminded to identify this program solicitation number in the program solicitation block on the NSF Cover Sheet For Proposal to the National Science Foundation. Compliance with this requirement is critical to determining the relevant proposal processing guidelines. Failure to submit this information may delay processing.
- Full proposals submitted via Grants.gov: Proposals submitted in response to this program solicitation via Grants.gov should be prepared and submitted in accordance with the *NSF Grants.gov Application Guide: A Guide for the Preparation and Submission of NSF Applications via Grants.gov*. The complete text of the *NSF Grants.gov Application Guide* is available on the Grants.gov website and on the NSF website at: (https://www.nsf.gov/publications/pub_summ.jsp?ods_key=grantsgovguide). To obtain copies of the Application Guide and Application Forms Package, click on the Apply tab on the Grants.gov site, then click on the Apply Step 1: Download a Grant Application Package and Application Instructions link and enter the funding opportunity number, (the program solicitation number without the NSF prefix) and press the Download Package button. Paper copies of the Grants.gov Application Guide also may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov.

In determining which method to utilize in the electronic preparation and submission of the proposal, please note the following:

Collaborative Proposals. All collaborative proposals submitted as separate submissions from multiple organizations must be submitted via FastLane. PAPPG Chapter II.D.3 provides additional information on collaborative proposals.

See PAPPG Chapter II.C.2 for guidance on the required sections of a full research proposal submitted to NSF. Please note that the proposal preparation instructions provided in this program solicitation may deviate from the PAPPG instructions.

The following requirements generally apply to all proposals. Specific requirements that are unique to one of the proposal types are clearly identified.

Please note that the Planning Grant proposals described in this solicitation are a solicitation-specific project category and are separate and distinct from the type of proposal described in Chapter II.E.1 of the PAPPG. When preparing a Planning proposal in response to this solicitation, the “Research” type of proposal should be selected in the proposal preparation module in FastLane or Grants.gov.

I. Proposal Title: The proposal title established in FastLane should clearly indicate which proposal type is being supported by the proposed project, using the relevant format here:

- For planning grants projects, the title should read as “Planning grant**:** rest of the title….”
- For implementation grants projects, the title should read as “Implementation grant**:** rest of the title….”

II. Project Description: In addition to the guidance contained in the PAPPG, including the requirement for a separate section labeled “Broader Impacts”, the Project Description should include the following:

A. Planning Grants (a maximum of 8 pages)

a. *Overview*. Provide a brief description of the goals and objectives of the proposed project, the intellectual focus, organizational structure, timetable, and any participating organizations' commitment to the activity.
b. *Institutional Profile(s)*. Provide a brief description of the submitting organization and any other organizational partners in the project. If more than one organization is involved in the project, the proposal should describe the goals of the collaboration and the anticipated outcomes for anyone who will participate in the collaboration.
c. *Project Design*. Proposals should describe the specific activities that will be undertaken to achieve the goals outlined in this solicitation, and how the activities are appropriate for a planning grant. Details on the learning ecosystem model that will be applied during the project should be discussed here. Include plan for participant and community engagement. For planning grants that aim to improve the workplace culture in their institution to prepare for an implementation grant, a plan for these activities should be presented.

d. *Project Personnel*. This subsection should describe any relevant experience and the record of involvement of PIs and involved staff with research, training, education of, and/or equity and inclusion efforts in the geosciences.
e. *Evaluation and reporting*. Provide a succinct plan for summative evaluation of the proposed activities. PIs must engage specialists in evaluation (from their organization or another one) in planning and implementing the project evaluation. Unless a case is made, it is preferable that engaged specialists are not members of the core project team (e.g., PI, CoPI, etc.).

B. Implementation Grants (a maximum of 20 pages)

a. *Overview*. Provide a brief description of the goals and objectives of the proposed project, the intellectual focus, organizational structure, timetable, and any participating organizations' commitment to the activity. Information should be provided about the specific cohort populations being targeted (e.g., demographics, career stages, critical juncture), as well as a justification as to why these particular populations were chosen.
b. *Institutional Profile(s)*. Provide a brief description of the submitting organization and any other organizational partners in the project. Proposals should describe the current status of geoscience education, research, and/or training opportunities and equity and inclusion efforts at each organization, including the demographics and expertise of the faculty, staff, and the number, demographics, and expertise of the targeted population participating in these opportunities. If more than one organization is involved in the project, the proposal should describe the goals of the collaboration and the anticipated outcomes for anyone who will participate in that collaboration. The roles of each organization and a management plan should be clearly defined.
c. *Project Design*. Proposals should describe the specific activities that will be undertaken to achieve the goals outlined in this solicitation, and how the activities are appropriate for an implementation grant. Details on the learning ecosystem model that will be applied during the project should be discussed here.
d. *Project Personnel*. This subsection should describe any relevant experience and the record of involvement with research, training, education of, and/or equity and inclusion efforts for the target population, by the PI, the faculty or other professionals who may serve as mentors for the proposed activities. The description should include information on the record of PIs in providing professional development opportunities, work in improving workplace culture through DEI efforts, or expertise in working in equitable partnerships with local communities. This section should also discuss the demographics and preparation of the staff involved, including mentors; strategies for recruiting and selecting additional mentors if needed; any training, mentoring, or monitoring that staff and mentors have received or will receive to help them support the project.
e. *Participant Recruitment and Selection and Mentoring*. The overall quality of the cohort recruitment and selection processes and criteria will be an important element in the evaluation of the proposal. The cohort recruitment plan should be described with as much specificity as possible, including the types and/or names of academic institutions or other partners where cohorts will be recruited and the efforts that will be made to attract members of traditionally excluded groups. The number of participants engaged in project activities should be appropriate to the institutional or organizational setting, as well as the project design. This section should also describe the mentoring strategy for participants and specific mentoring trainings for project staff who will serve in a mentoring role. The project can choose to create joint cohorts with local community member participation if it supports the goals of the project.
f. *Project Evaluation and Reporting*. Each project should include a description of formative and summative evaluation activities that will be undertaken to improve implementation and document progress toward achieving major goals and objectives. This section should describe efforts to measure qualitatively and quantitatively the success of the project in achieving its goals, including the research outcomes, impact and benefits to any local communities involved in the project, as well as the degree to which participants have gained scientific skills, have changed their perspectives and attitudes toward participatory geoscience research and career paths, and/or have been successfully prepared to be an agent of change. In addition, it is highly desirable to have a structured means of tracking participants beyond the duration of the project, with the aim of gauging the degree to which the experience has been a lasting influence in the participants' and projects' contributions towards making the geoscience community more inclusive. Evaluations need to be culturally appropriate for the target population and communities involved in the project. PIs must engage specialists in evaluation (from their organization or another one) in planning and implementing the project evaluation. Unless a case is made, it is preferable that engaged specialists are not members of the core project team (e.g., PI, CoPI, etc.).
g. *Community Partnership Plan*. Proposals that include partnerships with local communities need to provide a detailed plan on how the partnership will be established in an equitable and respectful manner. The plan should detail what commitments have been made by all involved parties and how impact and results will be assessed and shared across all partners.
h. *Justice, Equity, Diversity, and Inclusion.* For implementation grants it is expected that proposing institutions can clearly articulate their solid commitment to Justice, Equity, Diversity and Inclusion and can provide documentation such as Strategic Plans or Workplans.

Supplementary Documents: In addition to the guidance contained in the PAPPG, Implementation Grant proposals should include the following Supplementary Document, if applicable:

Research Safety Plan. Projects that involve work off campus need to present a safety plan for all participants (up to three pages maximum). Fieldwork presents unique challenges that can increase the likelihood of harassment, including challenging physical conditions, social isolation, and limited communication methods. Each project that proposes to conduct research in the field, meaning off-campus or off-site, including on vessels and aircraft, must upload a plan that takes into account the:

- Inclusion/safety (from discrimination and harassment) challenges for the location(s) – e.g., communication limitations due to isolation; diversity of local community (using community to indicate the human community) compared to the diversity of field/vessel/aircraft team; cultural/legal differences that may present personnel and participant safety challenges.
- Incident Reporting/Communications - e.g., within team, to organization(s), to community; minimizing pinch points within the plan (e.g., a single satellite phone); specifics if multiple organizations are involved; consideration of involvement outside the funded organization(s).
- Field Support - e.g., real-time assistance resources (e.g., identified lead team member, hotlines); response activities (safety standdowns, return to organization guidance).

B. Budgetary Information

Cost Sharing:

Inclusion of voluntary committed cost sharing is prohibited.

Other Budgetary Limitations:

Implementation grants have a limit of $1.5M per year for up to 5 years, planning grants have a limit of $120,000 per year for up to 2.5 years. Implementation grants are eligible for renewal for an additional 5 years pending availability of funds and favorable review.

Budget Preparation Instructions:

It is expected that a large portion of the funding being requested will be used to support participants or activities/mechanism/experiences that would directly impact participants. Proposers should consult with their Sponsored Research Office as to whether institutional policies require that this support be in the form of *Participant Support Costs* or through some other budget category (e.g., Salaries). Participants serve a different role on the project because their involvement is aimed at developing research and leadership skills or providing practical educational experiences. Equitable participation of local community partners and social science experts needs to be recognized within the budget.

The PI is expected to attend meetings of Principal Investigators during the duration of the project (one meeting for PIs of planning grants, and up to two for PIs of Implementation Grants), likely to be held virtually, or an alternative location (e.g., professional society meeting), and should include funding to support travel and per diem for those two-day meeting in the budget.

C. Due Dates

- **Letter of Intent Due Date(s)** ***(required)*** (due by 5 p.m. submitter's local time):

  March 14, 2022

  (required only for Implementation Grants)

- **Full Proposal Deadline(s)** (due by 5 p.m. submitter's local time):

  May 02, 2022

Letters of intent are only required for proposals for implementation grants. Proposals for planning grants do not require a letter of intent.

D. FastLane/Grants.gov Requirements

For Proposals Submitted Via FastLane:

To prepare and submit a proposal via FastLane, see detailed technical instructions available at: https://www.fastlane.nsf.gov/a1/newstan.htm. For FastLane user support, call the NSF Help Desk at 1-800-673-6188 or e-mail fastlane@nsf.gov. The NSF Help Desk answers general technical questions related to the use of the FastLane and Research.gov systems. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this funding opportunity.

For Proposals Submitted Via Grants.gov:

Before using Grants.gov for the first time, each organization must register to create an institutional profile. Once registered, the applicant's organization can then apply for any federal grant on the Grants.gov website. Comprehensive information about using Grants.gov is available on the Grants.gov Applicant Resources webpage: https://www.grants.gov/web/grants/applicants.html. In addition, the NSF Grants.gov Application Guide (see link in Section V.A) provides instructions regarding the technical preparation of proposals via Grants.gov. For Grants.gov user support, contact the Grants.gov Contact Center at 1-800-518-4726 or by email: support@grants.gov. The Grants.gov Contact Center answers general technical questions related to the use of Grants.gov. Specific questions related to this program solicitation should be referred to the NSF program staff contact(s) listed in Section VIII of this solicitation.

Submitting the Proposal: Once all documents have been completed, the Authorized Organizational Representative (AOR) must submit the application to Grants.gov and verify the desired funding opportunity and agency to which the application is submitted. The AOR must then sign and submit the application to Grants.gov. The completed application will be transferred to the NSF FastLane system for further processing.

Proposers that submitted via FastLane may use Research.gov to verify the status of their submission to NSF. For proposers that submitted via Grants.gov, until an application has been received and validated by NSF, the Authorized Organizational Representative may check the status of an application on Grants.gov. After proposers have received an e-mail notification from NSF, Research.gov should be used to check the status of an application.

VI. NSF PROPOSAL PROCESSING AND REVIEW PROCEDURES

Proposals received by NSF are assigned to the appropriate NSF program for acknowledgement and, if they meet NSF requirements, for review. All proposals are carefully reviewed by a scientist, engineer, or educator serving as an NSF Program Officer, and usually by three to ten other persons outside NSF either as *ad hoc* reviewers, panelists, or both, who are experts in the particular fields represented by the proposal. These reviewers are selected by Program Officers charged with oversight of the review process. Proposers are invited to suggest names of persons they believe are especially well qualified to review the proposal and/or persons they would prefer not review the proposal. These suggestions may serve as one source in the reviewer selection process at the Program Officer's discretion. Submission of such names, however, is optional. Care is taken to ensure that reviewers have no conflicts of interest with the proposal. In addition, Program Officers may obtain comments from site visits before recommending final action on proposals. Senior NSF staff further review recommendations for awards. A flowchart that depicts the entire NSF proposal and award process (and associated timeline) is included in PAPPG Exhibit III-1.

A comprehensive description of the Foundation's merit review process is available on the NSF website at: https://www.nsf.gov/bfa/dias/policy/merit_review/.

Proposers should also be aware of core strategies that are essential to the fulfillment of NSF's mission, as articulated in *Building the Future: Investing in Discovery and Innovation - NSF Strategic Plan for Fiscal Years (FY) 2018 – 2022*. These strategies are integrated in the program planning and implementation process, of which proposal review is one part. NSF's mission is particularly well-implemented through the integration of research and education and broadening participation in NSF programs, projects, and activities.

One of the strategic objectives in support of NSF's mission is to foster integration of research and education through the programs, projects, and activities it supports at academic and research institutions. These institutions must recruit, train, and prepare a diverse STEM workforce to advance the frontiers of science and participate in the U.S. technology-based economy. NSF's contribution to the national innovation ecosystem is to provide cutting-edge research under the

guidance of the Nation's most creative scientists and engineers. NSF also supports development of a strong science, technology, engineering, and mathematics (STEM) workforce by investing in building the knowledge that informs improvements in STEM teaching and learning.

NSF's mission calls for the broadening of opportunities and expanding participation of groups, institutions, and geographic regions that are underrepresented in STEM disciplines, which 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.

A. Merit Review Principles and Criteria

The National Science Foundation strives to invest in a robust and diverse portfolio of projects that creates new knowledge and enables breakthroughs in understanding across all areas of science and engineering research and education. To identify which projects to support, NSF relies on a merit review process that incorporates consideration of both the technical aspects of a proposed project and its potential to contribute more broadly to advancing NSF's mission "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense; and for other purposes." NSF makes every effort to conduct a fair, competitive, transparent merit review process for the selection of projects.

1. Merit Review Principles

These principles are to be given due diligence by PIs and organizations when preparing proposals and managing projects, by reviewers when reading and evaluating proposals, and by NSF program staff when determining whether or not to recommend proposals for funding and while overseeing awards. Given that NSF is the primary federal agency charged with nurturing and supporting excellence in basic research and education, the following three principles apply:

- All NSF projects should be of the highest quality and have the potential to advance, if not transform, the frontiers of knowledge.
- NSF projects, in the aggregate, should contribute more broadly to achieving societal goals. These "Broader Impacts" may be accomplished through the research itself, through activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. The project activities may be based on previously established and/or innovative methods and approaches, but in either case must be well justified.
- Meaningful assessment and evaluation of NSF funded projects should be based on appropriate metrics, keeping in mind the likely correlation between the effect of broader impacts and the resources provided to implement projects. If the size of the activity is limited, evaluation of that activity in isolation is not likely to be meaningful. Thus, assessing the effectiveness of these activities may best be done at a higher, more aggregated, level than the individual project.

With respect to the third principle, even if assessment of Broader Impacts outcomes for particular projects is done at an aggregated level, PIs are expected to be accountable for carrying out the activities described in the funded project. Thus, individual projects should include clearly stated goals, specific descriptions of the activities that the PI intends to do, and a plan in place to document the outputs of those activities.

These three merit review principles provide the basis for the merit review criteria, as well as a context within which the users of the criteria can better understand their intent.

2. Merit Review Criteria

All NSF proposals are evaluated through use of the two National Science Board approved merit review criteria. In some instances, however, NSF will employ additional criteria as required to highlight the specific objectives of certain programs and activities.

The two merit review criteria are listed below. **Both** criteria are to be given **full consideration** during the review and decision-making processes; each criterion is necessary but neither, by itself, is sufficient. Therefore, proposers must fully address both criteria. (PAPPG Chapter II.C.2.d(i). contains additional information for use by proposers in development of the Project Description section of the proposal). Reviewers are strongly encouraged to review the criteria, including PAPPG Chapter II.C.2.d(i), prior to the review of a proposal.

When evaluating NSF proposals, reviewers will be asked to consider what the proposers want to do, why they want to do it, how they plan to do it, how they will know if they succeed, and what benefits could accrue if the project is successful. These issues apply both to the technical aspects of the proposal and the way in which the project may make broader contributions. To that end, reviewers will be asked to evaluate all proposals against two criteria:

- **Intellectual Merit:** The Intellectual Merit criterion encompasses the potential to advance knowledge; and
- **Broader Impacts:** The Broader Impacts criterion encompasses the potential to benefit society and contribute to the achievement of specific, desired societal outcomes.

The following elements should be considered in the review for both criteria:

1. What is the potential for the proposed activity to
    a. Advance knowledge and understanding within its own field or across different fields (Intellectual Merit); and
    b. Benefit society or advance desired societal outcomes (Broader Impacts)?
2. To what extent do the proposed activities suggest and explore creative, original, or potentially transformative concepts?
3. Is the plan for carrying out the proposed activities well-reasoned, well-organized, and based on a sound rationale? Does the plan incorporate a mechanism to assess success?
4. How well qualified is the individual, team, or organization to conduct the proposed activities?
5. Are there adequate resources available to the PI (either at the home organization or through collaborations) to carry out the proposed activities?

Broader impacts may be accomplished through the research itself, through the activities that are directly related to specific research projects, or through activities that are supported by, but are complementary to, the project. NSF values the advancement of scientific knowledge and activities that contribute to achievement of societally relevant outcomes. Such outcomes include, but are not limited to: full participation of women, persons with disabilities, and other underrepresented groups in science, technology, engineering, and mathematics (STEM); improved STEM education and educator development at any level; increased public scientific literacy and public engagement with science and technology; improved well-being of individuals in society; development of a diverse, globally competitive STEM workforce; increased partnerships between academia, industry, and others; improved national security; increased economic competitiveness of the United States; and enhanced infrastructure for research and education.

Proposers are reminded that reviewers will also be asked to review the Data Management Plan and the Postdoctoral Researcher Mentoring Plan, as appropriate.

Additional Solicitation Specific Review Criteria

For planning grants and implementation grants:

- Community Partnerships*:* Does the proposed project have existing authentic community partnerships or a clear plan on how these will be established in an equitable and respectful manner?
- Project Evaluation and Reporting: Will the evaluation and monitoring plan provide sufficient documentation that project goals and outcomes have been realized?
- Connection to Geoscience Education Research and Community-Driven Research: How well informed are the vision and execution plan by the literature and prior attempts, if applicable, to implement change.

Further criteria for implementation grants:

- Participant Recruitment, Selection and Mentoring: Is the recruitment and selection process described with sufficient detail? Is the recruitment plan likely to attract a diverse population of participants that would benefit from the proposed activities? Is there a mentoring plan in place for participants? The plan should emphasize strategies to ensure inclusive environments, programming, and experiences (including but not limited to sufficient training for mentors).
- Justice, Equity, Diversity, and Inclusion. Is the organizational commitment to Justice, Equity, Diversity, and Inclusion outlined well in the proposal, supported with the appropriate documentation?

B. Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by Panel Review.

Reviewers will be asked to evaluate proposals using two National Science Board approved merit review criteria and, if applicable, additional program specific criteria. A summary rating and accompanying narrative will generally be completed and submitted by each reviewer and/or panel. The Program Officer assigned to manage the proposal's review will consider the advice of reviewers and will formulate a recommendation.

After scientific, technical and programmatic review and consideration of appropriate factors, the NSF Program Officer recommends to the cognizant Division Director whether the proposal should be declined or recommended for award. NSF strives to be able to tell applicants whether their proposals have been declined or recommended for funding within six months. Large or particularly complex proposals or proposals from new awardees may require additional review and processing time. The time interval begins on the deadline or target date, or receipt date, whichever is later. The interval ends when the Division Director acts upon the Program Officer's recommendation.

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. After an administrative review has occurred, Grants and Agreements Officers perform 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.

Once an award or declination decision has been made, Principal Investigators are provided feedback about their proposals. In all cases, reviews are treated as confidential documents. Verbatim copies of reviews, excluding the names of the reviewers or any reviewer-identifying information, are sent to the Principal Investigator/Project Director by the Program Officer. In addition, the proposer will receive an explanation of the decision to award or decline funding.

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 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.B. for additional information on the review process.)

B. Award Conditions

An NSF award consists of: (1) the award notice, 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 notice; (4) the applicable award conditions, such as Grant General Conditions (GC-1)*; or Research Terms and Conditions* and (5) any announcement or other NSF issuance that may be incorporated by reference in the award notice. Cooperative agreements also are administered in accordance with NSF Cooperative Agreement Financial and Administrative Terms and Conditions (CA-FATC) and the applicable Programmatic Terms and Conditions. NSF awards are electronically signed by an NSF Grants and Agreements Officer and transmitted electronically to the organization via e-mail.

*These documents may be accessed electronically on NSF's Website at https://www.nsf.gov/awards/managing/award_conditions.jsp?org=NSF. Paper copies may be obtained from the NSF Publications Clearinghouse, telephone (703) 292-8134 or by e-mail from nsfpubs@nsf.gov.

More comprehensive information on NSF Award Conditions and other important information on the administration of NSF awards is contained in the NSF

Proposal & Award Policies & Procedures Guide (PAPPG) Chapter VII, available electronically on the NSF Website at https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg.

C. Reporting Requirements

For all multi-year grants (including both standard and continuing grants), the Principal Investigator must submit an annual project report to the cognizant Program Officer no later than 90 days prior to the end of the current budget period. (Some programs or awards require submission of more frequent project reports). No later than 120 days following expiration of a grant, the PI also is required to submit a final project report, and a project outcomes report for the general public.

Failure to provide the required annual or final project reports, or the project outcomes report, will delay NSF review and processing of any future funding increments as well as any pending proposals for all identified PIs and co-PIs on a given award. 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 Research.gov, for preparation and submission of annual and final project reports. Such reports provide information on accomplishments, project participants (individual and organizational), publications, and other specific products and impacts of the project. Submission of the report via Research.gov constitutes certification by the PI that the contents of the report are accurate and complete. The project outcomes report also must be prepared and submitted using Research.gov. This report serves as a brief summary, prepared specifically for the public, of the nature and outcomes of the project. This report will be posted on the NSF website exactly as it is submitted by the PI.

More comprehensive information on NSF Reporting Requirements and other important information on the administration of NSF awards is contained in the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) Chapter VII, available electronically on the NSF Website at https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg.

VIII. AGENCY CONTACTS

Please note that the program contact information is current at the time of publishing. See program website for any updates to the points of contact.

General inquiries regarding this program should be made to:

- Bernard Grant, OAD/GEO, telephone: (703) 292-4699, email: geogold@nsf.gov
- Brandon Jones, OAD/GEO, telephone: (703) 292-8500, email: geogold@nsf.gov
- Amanda S. Adams, AGS/GEO, telephone: (703) 292-8521, email: geogold@nsf.gov
- Aisha Morris, EAR/GEO, telephone: (703) 292-7081, email: geogold@nsf.gov
- Elizabeth L. Rom, OCE/GEO, telephone: (703) 292-7709, email: geogold@nsf.gov

For questions related to the use of FastLane or Research.gov, contact:

- FastLane and Research.gov Help Desk: 1-800-673-6188
- FastLane Help Desk e-mail: fastlane@nsf.gov.
- Research.gov Help Desk e-mail: rgov@nsf.gov

For questions relating to Grants.gov contact:

- Grants.gov Contact Center: If the Authorized Organizational Representatives (AOR) has not received a confirmation message from Grants.gov within 48 hours of submission of application, please contact via telephone: 1-800-518-4726; e-mail: support@grants.gov.

IX. OTHER INFORMATION

The NSF website provides the most comprehensive source of information on NSF Directorates (including contact information), programs and funding opportunities. Use of this website by potential proposers is strongly encouraged. In addition, "NSF Update" is an information-delivery system designed to keep potential proposers and other interested parties apprised of new NSF funding opportunities and publications, important changes in proposal and award policies and procedures, and upcoming NSF Grants Conferences. Subscribers are informed through e-mail or the user's Web browser each time new publications are issued that match their identified interests. "NSF Update" also is available on NSF's website.

Grants.gov provides an additional electronic capability to search for Federal government-wide grant opportunities. NSF funding opportunities may be accessed via this mechanism. Further information on Grants.gov may be obtained at https://www.grants.gov.

ABOUT THE NATIONAL SCIENCE FOUNDATION

The National Science Foundation (NSF) is an independent Federal agency created by the National Science Foundation Act of 1950, as amended (42 USC 1861-75). The Act states the purpose of the NSF is "to promote the progress of science; [and] to advance the national health, prosperity, and welfare by supporting research and education in all fields of science and engineering."

NSF funds research and education in most fields of science and engineering. It does this through grants and cooperative agreements to more than 2,000 colleges, universities, K-12 school systems, businesses, informal science organizations and other research organizations throughout the US. The Foundation accounts for about one-fourth of Federal support to academic institutions for basic research.

NSF receives approximately 55,000 proposals each year for research, education and training projects, of which approximately 11,000 are funded. In addition, the Foundation receives several thousand applications for graduate and postdoctoral fellowships. The agency operates no laboratories itself but does support National Research Centers, user facilities, certain oceanographic vessels and Arctic and Antarctic research stations. The Foundation also supports cooperative research between universities and industry, US participation in international scientific and engineering efforts, and educational activities at every academic level.

Facilitation Awards for Scientists and Engineers with Disabilities (FASED) provide funding for special assistance or equipment to enable persons with disabilities to work on NSF-supported projects. See the *NSF Proposal & Award Policies & Procedures Guide* Chapter II.E.6 for instructions regarding preparation of these types of proposals.

The National Science Foundation has Telephonic Device for the Deaf (TDD) and Federal Information Relay Service (FIRS) capabilities that enable individuals with hearing impairments to communicate with the Foundation about NSF programs, employment or general information. TDD may be accessed at (703) 292-5090 and (800) 281-8749, FIRS at (800) 877-8339.

The National Science Foundation Information Center may be reached at (703) 292-5111.

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 https://www.nsf.gov

- **Location:** 2415 Eisenhower Avenue, Alexandria, VA 22314
- **For General Information** (NSF Information Center)**:** (703) 292-5111
- **TDD (for the hearing-impaired):** (703) 292-5090
- **To Order Publications or Forms:**

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

  or telephone: (703) 292-8134
- **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; and 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 proposer 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 or other entities needing information regarding applicants or nominees as part of a joint application review process, or in order to coordinate programs or policy; 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 System of Record Notices, NSF-50, "Principal Investigator/Proposal File and Associated Records," and NSF-51, "Reviewer/Proposal File and Associated Records." 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 Office of Management and Budget (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 the burden estimate and any other aspect of this collection of information, including suggestions for reducing this burden, to:

Suzanne H. Plimpton
Reports Clearance Officer
Policy Office, Division of Institution and Award Support
Office of Budget, Finance, and Award Management
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