

Alliances for Graduate Education and the Professoriate (AGEP)

PROGRAM SOLICITATION NSF 16-552

REPLACES DOCUMENT(S):
NSF 14-505



National Science Foundation

Directorate for Education & Human Resources
Division of Human Resource Development

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

June 14, 2016

December 09, 2016

Second Friday in December, Annually Thereafter

December 08, 2017

Second Friday in December, Annually Thereafter

IMPORTANT INFORMATION AND REVISION NOTES

In the Transformation Alliance track the requested duration increased from 42 to 60 months and the requested budget maximum increased from \$1,750,000 to \$2,000,000. ; The Knowledge Adoption and Translation and the Broadening Participation Research in STEM Education tracks were discontinued. ;

Any proposal submitted in response to this solicitation should be submitted in accordance with the revised *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) ([NSF 19-1](#)), which is effective for proposals submitted, or due, on or after February 25, 2019.

SUMMARY OF PROGRAM REQUIREMENTS

General Information

Program Title:

Alliances for Graduate Education and the Professoriate (AGEP)

Synopsis of Program:

The **Alliances for Graduate Education and the Professoriate (AGEP)** program seeks to advance knowledge about models to improve pathways to the professoriate and success for historically underrepresented minority doctoral students, postdoctoral fellows and faculty, particularly African Americans, Hispanic Americans, American Indians, Alaska Natives, Native Hawaiians, and Native Pacific Islanders, in specific STEM disciplines and/or STEM education research fields. New and innovative models are encouraged, as are models that reproduce and/or replicate existing evidence-based alliances in significantly different disciplines, institutions, and participant cohorts.

The AGEP program goal is to increase the number of historically underrepresented minority faculty, in specific STEM disciplines and STEM education research fields, by advancing knowledge about pathways to career success. The program objectives include: To support the development, implementation and study of innovative models of doctoral education, postdoctoral training, and faculty advancement for historically underrepresented minorities in specific STEM disciplines and/or STEM education research fields; and to advance knowledge about the underlying issues, policies and practices that have an impact on the participation, transitions and advancement of historically underrepresented minorities in the STEM academy.

The AGEP Transformation Alliance projects are collaborative research projects representing new strategic alliances of institutions and organizations to develop, implement, and study evidence-based models to transform doctoral education, postdoctoral training, and faculty advancement for historically underrepresented minorities in specific STEM disciplines and/or STEM education research fields. Embedded social science and education research contributes to the knowledge base about how transformational models eliminate or mitigate negative factors and promote positive policies and practices for historically underrepresented minorities.

AGEP addresses academic workforce development in a broadening participation and institutional capacity building context. Strategic collaborations are encouraged with multiple academic partners, the private sector, non-governmental organizations, professional organizations, government agencies, national laboratories, field stations, teaching and learning centers, informal science centers, and other relevant STEM and/or STEM education research organizations. The AGEP program encourages project leadership by, and partnerships with, all types of minority serving institutions, such as majority minority serving institutions, historically black colleges and universities, high Hispanic enrollment institutions, tribal colleges and universities, and institutions serving native Hawaiians, native Pacific Islanders, and/or Alaskan natives.

Note to students and postdoctoral scholars seeking support: The AGEP program does not make awards to individual students or postdoctoral scholars to undertake their education or research activities.

Undergraduates and graduate students seeking support for graduate education should review the NSF Graduate Research Fellowship program (GRFP) (<http://nsfgrfp.org/>). Postdoctoral scholars seeking support should review the NSF postdoctoral programs summarized at www.fastlane.nsf.gov/servlet/fastlane.pdoc.DisplayProgramType. Additionally, some NSF Directorates may have special funding opportunities to support students and postdoctoral trainees that contribute to broadening participation in STEM. NSF principal investigators seeking funds to support students and postdoctoral trainees, who are members of historically underrepresented minority groups, are encouraged to contact their NSF program officer for information on potential opportunities.

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.

- Mark H. Leddy, Program Director, telephone: (703) 292-4655, email: mleddy@nsf.gov
- Maurice Dues, Program Specialist, telephone: (703) 292-7311, email: mdues@nsf.gov

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

- 47.076 --- Education and Human Resources

Award Information

Anticipated Type of Award: Standard Grant or Continuing Grant

Estimated Number of Awards: 20

5-6 new AGEP Transformation Alliances per year, with about 3-4 awardee organizations collaborating in each Alliance, are anticipated pending the availability of funds.

Anticipated Funding Amount: \$6,000,000 to \$8,000,000

Pending the availability of funds, a maximum of \$2,000,000 for each of 5-6 new AGEP Transformation Alliances is anticipated, with about 3-4 awardee organizations collaborating in each Alliance.

Eligibility Information

Who May Submit Proposals:

The categories of proposers eligible to submit proposals to the National Science Foundation are identified in the *NSF Proposal & Award Policies & Procedures Guide (PAPPG)*, Chapter I.E.

Who May Serve as PI:

There are no restrictions or limits.

Limit on Number of Proposals per Organization:

There are no restrictions or limits.

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

There are no restrictions or limits.

Proposal Preparation and Submission Instructions

A. Proposal Preparation Instructions

- **Letters of Intent:** Not required
- **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 Research.gov: *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

- **Full Proposal Deadline(s)** (due by 5 p.m. submitter's local time):
 - June 14, 2016
 - December 09, 2016
 - Second Friday in December, Annually Thereafter
 - December 08, 2017
 - Second Friday in December, Annually Thereafter

Proposal Review Information Criteria

Merit Review Criteria:

National Science Board approved criteria apply.

Award Administration Information

Award Conditions:

Standard NSF award conditions apply.

Reporting Requirements:

Standard NSF reporting requirements apply.

TABLE OF CONTENTS

Summary of Program Requirements

- I. **Introduction**
- II. **Program Description**
- III. **Award Information**

IV. Eligibility Information

V. Proposal Preparation and Submission Instructions

- A. Proposal Preparation Instructions
- B. Budgetary Information
- C. Due Dates
- D. FastLane/Research.gov/Grants.gov Requirements

VI. NSF Proposal Processing and Review Procedures

- A. Merit Review Principles and Criteria
- B. Review and Selection Process

VII. Award Administration Information

- A. Notification of the Award
- B. Award Conditions
- C. Reporting Requirements

VIII. Agency Contacts

IX. Other Information

I. INTRODUCTION

Alliances for Graduate Education and the Professoriate (AGEP) is a National Science Foundation program in the Human Resource Development (HRD) division of the Directorate for Education and Human Resources. Since AGEP began funding awards in 1998, it has been committed to the national goal of increasing the number of historically underrepresented minorities (URMs), specifically African Americans, Hispanic Americans, American Indians, Alaska Natives, Native Hawaiians and Native Pacific Islanders, completing science, technology, engineering, and mathematics (STEM) graduate education and contributing to the diversity of the STEM professoriate. The investment emphasis currently focuses on advancing knowledge about innovative models to transform and improve pathways and success for URM doctoral students, postdoctoral fellows, and faculty in all STEM and STEM education research fields. The AGEP program goal is to increase the number of historically underrepresented minority faculty, in specific STEM disciplines and STEM education research fields, by advancing knowledge about pathways to career success. New models and knowledge about STEM doctoral education, postdoctoral training and faculty advancement that concentrate on URMs can have a significant impact on the diversity of the U.S. STEM workforce generally, and on the innovations generated by diverse academic research and development teams.

Advancing knowledge about new models of STEM doctoral education, postdoctoral training and faculty advancement, as well as knowledge about the underlying issues, policies and practices impacting the participation, transitions and advancement of URMs in the STEM academy, is aligned with recommendations and strategies identified in reports from the President's Council of Advisors on Science and Technology (2012), National Academy of Sciences (2011), and the Council of Graduate Schools (2015). As our nation's universities and colleges seek to better prepare our future STEM workforce, it is essential that STEM academic communities value racial and ethnic diversity, implement supportive broadening participation practices, and reward a multi-cultural learning and research climate (Byars-Winston, 2014; Franklin, et al, 2014; Whittaker & Montgomery, 2013).

References

- Byars-Winston, A. (2014). *Toward a Framework for Multicultural STEM-Focused Career Interventions*. The Career Development Quarterly, 62 (4), 340-357. <https://onlinelibrary.wiley.com/doi/full/10.1002/j.2161-0045.2014.00087.x> 0045.2014.00087.x/abstract
- Council of Graduate Schools (2015). *Doctoral Initiative on Minority Attrition and Completion*. Washington, DC: Council of Graduate Schools. http://cgsnet.org/ckfinder/userfiles/files/Doctoral_Initiative_on_Minority_Attrition_and_Completion_2015.pdf
- Franklin, S., Slate, J. & Joyner, S. (2014). *Ethnic Disparities in Graduate Education: A Selective Review of Quantitative Research, Social Theory and Quality Initiatives*. The Journal of Faculty Development, 3, 63-80. <http://www.ingentaconnect.com/content/nfp/jfd/2014/00000028/00000003/art00008>
- National Academies (2011). *Expanding Underrepresented Minority Participation: America's Science and Technology Talent at the Crossroads*. Washington, DC: National Academies Press, Washington, D.C., 2011. <http://www.nap.edu/catalog/12984/expanding-underrepresented-minority-participation-americas-science-and-technology-talent-at>
- National Science Foundation (2014). *Strategic Plan for 2014-2018 (NSF 14-043)*. Arlington, VA: National Science Foundation. https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf14043
- President's Council of Advisors on Science and Technology. (2012). *Transformation and Opportunity: The Future of the U.S. Research Enterprise*. Washington, DC: Executive Office of the President. https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/pcast_future_research_enterprise_20121130.pdf
- Whittaker, J. & Montgomery, B. (2013). *Cultivating Institutional Transformation and Sustainable STEM Diversity in Higher Education through Integrative Faculty Development*. Innovation Higher Education, 39, 263-275. <http://link.springer.com/article/10.1007%2Fs10755-013-9277-9>

II. PROGRAM DESCRIPTION

The AGEP program supports advancing knowledge about innovative models of doctoral education, postdoctoral training and faculty advancement of historically underrepresented minorities, specifically African Americans, Hispanic Americans, American Indians, Alaska Natives, Native Hawaiians and Native Pacific Islanders, in STEM disciplines and STEM education research fields. As evidence-based prototypes are developed, implemented and studied, the outcomes of the work should contribute to a better understanding of the underlying issues, policies and practices that have an impact on the participation, transitions and advancement of individuals who are historically underrepresented minorities in the STEM academy. Through alliances supported by the program, NSF is particularly interested in building knowledge in areas related to the following questions:

What are the underlying issues affecting the differential participation rates by historically underrepresented minorities (URMs) in doctoral education, postdoctoral training, and academic careers in STEM disciplines and STEM education research fields?

What are the interpersonal, organizational and professional experiences and mechanisms in doctoral and postdoctoral settings that enhance or inhibit academic performance and professional development? Do these experiences and mechanisms encourage or discourage persistence to degree completion, participation and success in postdoctoral training, and advancement in the STEM and STEM education research professoriates?

Which model components for transforming doctoral education, postdoctoral training and faculty advancement in STEM, and STEM education research, have the greatest potential for reproducibility and sustainability across our Nation's postsecondary institutions?

How does a diverse graduate student body, postdoctoral trainee population, and academic workforce affect innovation and productivity in STEM, and STEM education research?

These questions guide the knowledge the AGEP program strives to advance in the field. Alliance proposers are encouraged to propose project components that will investigate unique research questions and not the four aforementioned program-level questions.

AGEP Transformation Alliances: Support is available for new AGEP Transformation Alliance projects that are expected to be collaborative research proposals with a duration up to 60 months, and have a combined budget request, across all collaborating proposers, of up to \$2,000,000. The new AGEP Transformation Alliances develop, implement and study innovative models to transform doctoral education, postdoctoral training and faculty advancement of URMs in STEM and/or STEM education research careers. Proposers are encouraged to review the Proposal Preparation Instructions found in this solicitation.

New AGEP Transformation Alliance projects are expected to identify a model that includes innovative and systemic organizational approaches based on evidence about why specific model components are worthy of continued development, reproduction, implementation testing, investigation and sustainability. It is essential for proposers to provide evidence for the selection of each model component and to describe how an innovative model combining these components will be developed and studied, or replicated and investigated within a different STEM discipline and/or institutional context.

Strong projects include proof of prior model (or model component), development, research and implementation outcomes. All proposals must include a description about how the model will advance information regarding the underlying institutional and professional issues, policies and practices affecting the participation, transitions and/or professional advancement of historically underrepresented minorities in academic STEM disciplines and/or STEM education research fields. Proposers must also explain how the projected outcomes of the new model's development, implementation and testing activities are expected to have lasting impacts on the institutions involved in the project leading to sustainability of project activities and transformation of the organization's programs, policies and practices.

Proposers may choose to focus the model on the participation and/or professional progression of historically underrepresented minorities at one or more levels: the dissertation phase of doctoral education, postdoctoral training, and/or the experiences of faculty in tenure and non-tenure track lines. Each level is a legitimate target to investigate, as are the transitions within and across levels. For example, proposers may investigate graduate education at dissertator level and/or any one or combination of the following transitions: from doctoral education to postdoctoral training; from doctoral study, postdoctoral training and/or industry to faculty positions; from assistant to associate professorship; and/or from non-tenured to tenured faculty status. No more than 10% of the requested direct budget costs may be requested for Participant Support Costs to cover stipends, travel, subsistence and other expenses for student, postdoctoral trainee and/or faculty participants. Additionally, all project participants must be United States citizens, nationals, or permanent residents of the United States. The term "national" designates a native resident of a commonwealth or territory of the United States, such as American Samoa, Guam, the Commonwealth of Puerto Rico, the United States Virgin Islands, or the Commonwealth of the Northern Mariana Islands. It does not refer to a citizen of another country who has applied for United States citizenship and who has not received U.S. citizenship.

Projects also contribute to knowledge building focused on broadening participation, institutional capacity building, and institutional transformation by including an integrated social science or educational research component in the project that investigates the intrapersonal, interpersonal, organizational, and/or institutional mechanisms that support or inhibit the progress of historically underrepresented minority doctoral students, postdoctoral trainees and/or faculty in STEM and/or in STEM education research. Proposers may also study the intersection of race and ethnicity with gender, disability, socioeconomic status and other demographic characteristics that may impact doctoral degree completion, postdoctoral training and faculty career progression. Additionally, an integrated research component may also investigate the institutional climate, policies and practices that affect the model's development, implementation, study, reproducibility and sustainability.

Proposed alliance activities must form a feasible, logical, and comprehensive effort focused on developing, implementing and investigating a new model of doctoral education, postdoctoral training and/or faculty advancement in STEM and/or STEM education research. Alliance proposals are required to describe in detail the comprehensive plan that will be implemented both alliance-wide and at the individual institutions, and explain the unique contributions that each institutional partner will contribute to the alliance activities. All proposals should include a description of the theory of change, or logic model guiding the proposed project work, and plans for management, research, evaluation (see project evaluation guidance) and dissemination.

Strategic research collaborations are encouraged with multiple academic partners, the private sector, non-governmental organizations, professional organizations, government agencies, national laboratories, field stations, teaching and learning centers, informal science centers, and other relevant STEM academic and research entities. All types of academic and non-academic institutions may lead and

collaborate with other institutions to conduct the alliance's model development, implementation and study. The AGEP program encourages project leadership by, and partnerships with, all types of minority serving institutions, such as majority minority serving institutions, historically black colleges and universities, high Hispanic enrollment institutions, tribal colleges and universities, and institutions serving native Hawaiians, native Pacific Islanders, and/or Alaskan natives. Proposers are expected to describe why each partnering institution or organization has been selected and what benefits will result for each one, as well as how activities will be sustained at the collaborating research institutions.

AGEP supports the integration of education and research in STEM. This integration occurs within an academic STEM discipline, across fields and as a result of multidisciplinary or interdisciplinary collaborations. Proposers are given wide latitude in designing their alliance to include one or more STEM disciplines and/or STEM education research fields as part of the project's focus.

Competitive proposals continue and build upon established professional relationships and collaborations, with multiple academic partners, and they leverage existing or prior NSF support emphasizing broadening participation in STEM. Proposers are encouraged to collaborate with institutions with active NSF awards from programs such as, but not limited to, the Louis Stokes Alliances for Minority Participation (LSAMP) program's Bridge to the Doctorate activities; the National Science Foundation Research Traineeship (NRT) program; the ADVANCE: Increasing the Participation and Advancement of Women in Academic Science and Engineering Careers program; the NSF Graduate Research Fellowship Program (GRFP); and the various postdoctoral research fellowship programs found across the foundation in the Directorates for Biological Sciences, Geosciences, Mathematical and Physical Sciences, and Social, Behavioral and Economic Sciences.

Formative and summative assessment of the AGEP Transformation Alliance projects are high priorities for the AGEP program. All proposals must include an evaluation section that describes how the project will be independently evaluated to determine goal, objective, and activity progress; and project accomplishments, outcomes, and impacts. The project evaluation should be designed to serve as a valuable source of information on how the project is being developed, implemented and tested, as well as what works and what should be modified. Evaluation plans, developed and implemented by an external and independent evaluation expert, should link directly to the project's logic model or theory of change, and include evaluation questions to be answered that are specific to measuring project activities, progress, accomplishments, outcomes, and impacts. Evaluation plans should be appropriate to the size and scope of the project, and usually include both formative and summative components based on the evaluation questions of interest along with a proposed timeline. The purpose of a formative evaluation is to provide information for project improvement. The purpose of a summative evaluation is to assess the quality, outcomes, and impact of the project. Formative evaluation plans outline methods for documenting progress toward project goals and should include a feedback feature that allows for continuous improvement of the project activities. A summative evaluation collects information about accomplishments, outcomes, and impacts of the project, and about the related processes, strategies, and activities that have led to them. The budget must include adequate resources for the project evaluation. Project evaluation should be led by an expert independent evaluator or evaluation team, depending on the size and scope of the project. Evaluators are expected to adhere to the American Evaluation Association's Guiding Principles for Evaluators (<http://www.eval.org/p/cm/ld/fid=51>), and project evaluations are expected to be consistent with standards established by the Joint Committee on Standards for Educational Evaluation (<http://www.jcsee.org/program-evaluation-standards-statements>). The following references may be helpful in designing an evaluation plan:

AAAS Measuring Diversity: An Evaluation Guide for STEM Graduate School Leaders <https://live-nsfagep.pantheonsite.io/wp-content/uploads/2011/04/MeasuringDiversity-EvalGuide.pdf>

AGEP Evaluation Tools <http://www.nsfagep.org/evaluation-resources/>

Common Guidelines for Research and Development https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf13126

Framework for Evaluating Impacts of Broadening Participation Projects https://www.nsf.gov/od/broadeningparticipation/framework-evaluating-impacts-broadening-participation-projects_1101.pdf

Framework for Evaluating Impacts of Informal Science Education Projects http://informalscience.org/documents/Eval_Framework.pdf

The 2010 User-Friendly Handbook for Project Evaluation <http://www.informalscience.org/sites/default/files/TheUserFriendlyGuide.pdf>

User-Friendly Handbook for Mixed Method Evaluations https://www.nsf.gov/publications/pub_summ.jsp?ods_key=nsf97153

Other Funding Opportunities: The AGEP program also funds Conferences; EARly-concept Grants for Exploratory Research (EAGER) and Grants for Rapid Response Research (RAPID). Such proposals may be submitted as described in the NSF PAPPG, which is available at https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg.

For **Conferences**, see PAPPG, II.E.7. The projects must be related to the AGEP program goal and objectives. Activities are expected to generate products usable to researchers and institutions aiming to adopt, reproduce, replicate and/or adapt models, or innovative model component(s), of STEM graduate education, postdoctoral training and faculty advancement for historically underrepresented minorities. Conferences advance research agendas for the professional communities and/or expand and disseminate knowledge about model development, implementation, testing and sustainability, and about issues, practices and policies supporting academic pathways and successes for doctoral students, postdoctoral fellows and faculty, who are historically underrepresented minorities, in STEM and/or STEM education research careers.

For **EARly-concept Grants for Exploratory Research (EAGER)**, see PAPPG II.E.2 For **Grants for Rapid Response Research (RAPID)**, see PAPPG, II.E.1.

Note to students and postdoctoral scholars seeking support: The AGEP program does not make awards to individual students or postdoctoral scholars to undertake their education or research activities. Undergraduates and graduate students seeking support for graduate education should review the NSF Graduate Research Fellowship program (GRFP) (<http://nsfgrfp.org/>). Postdoctoral scholars seeking support should review the NSF postdoctoral programs summarized at <http://www.fastlane.nsf.gov/servlet/fastlane.pdoc.DisplayProgramType>. Additionally, some NSF Directorates may have special funding opportunities to support students and postdoctoral trainees that contribute to broadening participation in STEM. NSF principal investigators seeking funds to support students and postdoctoral trainees, who are members of historically underrepresented minority groups, are encouraged to contact their NSF program officer for information on potential opportunities.

III. AWARD INFORMATION

Anticipated Type of Award: Continuing Grant or Standard Grant

Estimated Number of Awards: Pending the availability of funds, a maximum of \$2,000,000 for each of 5-6 new AGEP Transformation Alliances is anticipated, with about 3-4 awardee organizations collaborating in each Alliance.

IV. ELIGIBILITY INFORMATION

Who May Submit Proposals:

The categories of proposers eligible to submit proposals to the National Science Foundation are identified in the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG), Chapter I.E.

Who May Serve as PI:

There are no restrictions or limits.

Limit on Number of Proposals per Organization:

There are no restrictions or limits.

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

There are no restrictions or limits.

V. PROPOSAL PREPARATION AND SUBMISSION INSTRUCTIONS

A. Proposal Preparation Instructions

Full Proposal Preparation Instructions: Proposers may opt to submit proposals in response to this Program Solicitation via FastLane, Research.gov, 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) 292-7827 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 Research.gov: Proposals submitted in response to this program solicitation should be prepared and submitted in accordance with the general guidelines contained in the *NSF Proposal and Award Policies and 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) 292-7827 or by e-mail from nsfpubs@nsf.gov. The Prepare New Proposal setup will prompt you for the program solicitation number.
- 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) 292-7827 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 the NSF FastLane system. 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 information provides instructions that supplement the NSF PAPPG. Refer also to Section II, the Program Description section of this solicitation, for additional proposal preparation information and guidance. Please note that the proposal preparation instructions provided in this program solicitation may provide more specific instructions than the PAPPG instructions.

COVER SHEET: After selecting the AGEP program solicitation number, under the "NSF Unit Consideration" please select the following:

- "HRD-Division of Human Resource Development" for the NSF division; and
- "Minority Graduate Education" for the NSF program (AGEP was previously known by this name).

The TITLE should be prefaced in a manner that recognizes the AGEP program name and project type: "AGEP Transformation Alliance" and then add the unique project title.

Review the regulations regarding Human Subjects (45 CFR 690.101-124) retrieved at <https://www.nsf.gov/bfa/dias/policy/human.jsp>. Please note that Human Subjects regulations govern activities that have to do with safeguarding individually identifiable information such as student, faculty and/or administrator surveys and data. Therefore many projects may need to be reviewed by an Institutional Review Board (IRB). If the proposal has already been IRB reviewed and found to be exempt, indicate the Exemption Subsection on the Cover Sheet and include a copy of letter from the IRB official or board in the Supplementary Documents section of the proposal. For IRB approved activities, include the IRB signed and dated memorandum in the Supplementary Documents section of the proposal, and indicate the Approval Date on the Cover Sheet. A letter for IRB Exemption or Approval must include the Title of the proposal, as it appears on the Cover Sheet.

Award recommendations cannot be made by the program director unless evidence of IRB exemption or approval is provided. If the project will be reviewed in the future, please indicate on the proposal Cover Sheet that the IRB review is pending. Be sure to report on the Cover Page the Human Subjects Assurance Number for the IRB that will review, or already has reviewed, the proposed work.

PROJECT SUMMARY: The proposal must contain a summary of the proposed project not more than one page in length. The Project Summary consists of an overview, a statement on the intellectual merit of the proposed activity, and a statement on the broader impacts of the proposed activity. The overview includes a description of the project's goal(s), objectives, activities and methods that will be employed to develop, implement and investigate a model to transform doctoral education, postdoctoral training and/or faculty advancement involving historically underrepresented minorities in STEM disciplines and/or STEM education research fields. The statement on intellectual merit should describe the potential of the proposed activity to advance knowledge. The statement on broader impacts should describe the potential of the proposed activity to benefit society and contribute to the achievement of specific, desired societal outcomes. The Project Summary should be written in the third person, informative to other persons working in the same or related fields and, insofar as possible, understandable to a scientifically or technically literate lay reader. It should not be an abstract of the proposal. Proposals that do not contain the Project Summary, including an overview and separate statements under intellectual merit and broader impacts headings will not be accepted by FastLane or will be returned without review.

PROJECT DESCRIPTION: The proposal must contain a Project Description not more than 15 pages in length, following the guidelines provided in the PAPPG and this solicitation. Proposers are referred to Section II, the Program Description section of this solicitation, for additional proposal preparation information regarding the content that must be included in the Project Description. The headings used below are provided to direct proposers to important content that must be provided in the proposal and are not expected to be used in the Project Description narrative.

- **Project Goal to Develop, Implement and Study an Innovative Model and Rationale:** Describe the specific goal of the project that is expected to be achieved within the requested projected time frame. The innovative model that will be developed, replicated, implemented, studied and sustained should be described. Evidence-based model components should be explained with research findings supporting the selection of the model components. Proposers must provide a rationale, and a review of the literature, for targeting the specific model components, for selecting one or more levels and/or transition phases of participation and/or professional progression, for targeting one or more specific STEM disciplines and/or STEM education research fields, and for the inclusion of identified participant or subject populations.
- **Transformation Alliance Structure:** Explain the strategic collaborations among alliance partners and describe why each institution or organization has been selected and what benefits will result for each one. Provide information about the contributions each institution or organization will make to the project and explain how prior collaborations will support the effort. Describe how project activities are expected to have lasting impacts on the institutions and/or organizations involved in the building of the new model, implementation and testing work and, specifically, how they will lead to sustainability of project activities and transformation of the organization's programs, policies and practices.
- **Broader Impacts of the Proposed Work:** The PAPPG guidance specifies that the Project Description must contain a separate section of the narrative, labelled "Broader Impacts" that discusses the broader impacts of the proposed activities.
- **Prior NSF Support:** Intellectual merit and broader impacts results of prior NSF support for any PI or Co-PI who has received NSF funding in the past five years, must be reported in the Project Description. Refer to the PAPPG for instructions about the specific information which must be provided regarding prior NSF support.
- **Project Management:** Identify members of the project management/leadership team and their qualifications. Define the roles and responsibilities of key personnel who will carry out the project activities, including budget management, data management, and reporting. Successful program management practices include, but are not limited to devoting careful attention to management and administrative collaboration among all institutional partners in the alliance

Research Plan: Describe the research question(s) to be investigated and explain the significance and importance of answering the proposed research question(s). Explain how the research is integrated with the development, replication, implementation and testing of the innovative model components, and provide both a theoretical framework and a review of the relevant research literature motivating the investigation. Describe the research plan: Study design, methods, data collection, data analysis, and data interpretation plans. Explain how the work will contribute to advancing knowledge about the underlying issues, policies and practices impacting the participation, transitions and advancement of historically underrepresented

minorities in STEM disciplines and/or STEM education research fields. The research plan is distinct from the project evaluation plan and is not an evaluation of the project activities.

- **Dissemination Plan:** Explain plans to communicate the results and outcomes of the project work to other professionals in STEM education and research, and to the public, during the project timeframe. Describe the information to be disseminated, the means of dissemination, and the procedures for determining the success of the dissemination effort.
- **Project Evaluation:** Formative and summative assessments of AGEP Transformation Alliances are a high program priority. All proposals must include an evaluation section that describes how the project will be independently evaluated to determine goal, objective and activity progress, and project accomplishments, outcomes and impacts. Proposers are referred to Section II, the Program Description section of this solicitation, for additional proposal preparation information regarding project evaluation. An evaluation plan is distinct from the research plan, with the evaluation plan serving formative and summative assessment of the project.

REFERENCES CITED: Provide the references cited in the Project Summary and Project Description following the PAPPG guidance.

BIOGRAPHICAL SKETCHES: Follow the PAPPG guidelines and use the NSF biographical sketch format for each of the senior personnel, including the PI, Co-PIs, and any senior personnel listed in the budget or proposal who are Faculty Associates.

BUDGET: Follow the directions in the PAPPG and refer to section V. B. Budgetary Information of this solicitation. No more than 10% of the requested direct budget costs may be requested for Participant Support Costs to cover stipends, travel, subsistence and other expenses for student, postdoctoral trainee and/or faculty participants. Additionally, all project participants must be United States citizens, nationals, or permanent residents of the United States. The term "national" designates a native resident of a commonwealth or territory of the United States, such as American Samoa, Guam, the Commonwealth of Puerto Rico, the United States Virgin Islands, or the Commonwealth of the Northern Mariana Islands. It does not refer to a citizen of another country who has applied for United States citizenship and who has not received U.S. citizenship.

CURRENT AND PENDING SUPPORT: Follow the directions in the PAPPG and use the formats provided in FastLane or Grants.gov and be sure to enter this proposal as pending support.

FACILITIES, EQUIPMENT AND OTHER RESOURCES: Follow the directions in the PAPPG and provide a narrative description of the facilities, equipment and resources, both physical and personnel, that are directly applicable to the proposed work.

SPECIAL INFORMATION AND SUPPLEMENTARY DOCUMENTATION: There are multiple additional documents that must be included as part of this proposal, including a data management plan; a postdoctoral researcher mentoring plan, if applicable; documentation of substantial collaborative arrangements; and copies of IRB exemption or approval documentation. No additional supplemental documentation may be submitted and the proposal may be returned without review if unallowable documents are included with the proposal.

- **Data Management Plan:** This supplementary, two-page document must be included. Follow the PAPPG directions and the requirements established by the Directorate for Education and Human Resources: <https://www.nsf.gov/bfa/dias/policy/dmp.jsp>
- **Postdoctoral Researcher Mentoring Plan:** If personnel funding is requested for one or more Postdoctoral Scholars, then follow the PAPPG directions for providing the supplementary mentoring plan.
- **Documentation of Collaborative Arrangements:** When there are substantial arrangements with an organization that is not a collaborating proposing organization, or with an individual who is not a requested member of the project personnel, a letter of collaboration should be provided that specifies the expected contributions that will be made to the proposed work. These documents are not letters of endorsement for the proposal, but are signed and dated letters from the organizations, consultants, advisors, evaluators and others who have agreed to conduct work with, or provide services to, one of the proposing institutions.
- **Institutional Review Board (IRB) Documentation:** If the IRB has already determined that the proposed work is approved or exempt, then please provide the signed and dated letter from the IRB, or IRB office official, with the proposal title clearly identified. If IRB review is pending, then you can submit the documentation at a later time, when requested by NSF.

B. Budgetary Information

Cost Sharing:

Inclusion of voluntary committed cost sharing is prohibited.

Other Budgetary Limitations:

- Domestic travel should include plans for each partnering institution to send at least one PI to attend a one or two day grantee meeting in the Washington, DC area each year of the project.
- No more than 10% of the requested direct budget costs may be requested for Participant Support Costs to cover stipends, travel, subsistence and other expenses for student, postdoctoral trainee and/or faculty participants. Additionally, all project participants must be United States citizens, nationals, or permanent residents of the United States. The term "national" designates a native resident of a commonwealth or territory of the United States, such as American Samoa, Guam, the Commonwealth of Puerto Rico, the United States Virgin Islands, or the Commonwealth of the Northern Mariana Islands. It does not refer to a citizen of another country who has applied for United States citizenship and who has not received U.S. citizenship.

C. Due Dates

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

June 14, 2016

December 09, 2016

Second Friday in December, Annually Thereafter

December 08, 2017

Second Friday in December, Annually Thereafter

D. FastLane/Research.gov/Grants.gov Requirements

For Proposals Submitted Via FastLane or Research.gov:

To prepare and submit a proposal via FastLane, see detailed technical instructions available at: <https://www.fastlane.nsf.gov/a1/newstan.htm>. To prepare and submit a proposal via Research.gov, see detailed technical instructions available at: https://www.research.gov/research-portal/appmanager/base/desktop?_nfpb=true&_pageLabel=research_node_display&_nodePath=/researchGov/Service/Desktop/ProposalPreparationandSubmission.html. For FastLane or Research.gov user support, call the FastLane and Research.gov Help Desk at 1-800-673-6188 or e-mail fastlane@nsf.gov or rgov@nsf.gov. The FastLane and Research.gov 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: <http://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 or Research.gov 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 underrepresented minorities 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.

B. Review and Selection Process

Proposals submitted in response to this program solicitation will be reviewed by Ad hoc Review and/or 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) 292-7827 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:

- Mark H. Leddy, Program Director, telephone: (703) 292-4655, email: mleddy@nsf.gov
- Maurice Dues, Program Specialist, telephone: (703) 292-7311, email: mdues@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 <http://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 (FASSED) 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) 292-7827
- **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; 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 Systems of Records, NSF-50, "Principal Investigator/Proposal File and Associated Records," 69 Federal Register 26410 (May 12, 2004), and NSF-51, "Reviewer/Proposal File and Associated Records," 69 Federal Register 26410 (May 12, 2004). 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
Office of the General Counsel
National Science Foundation
Alexandria, VA 22314



National Science Foundation, 2415 Eisenhower Avenue, Alexandria, Virginia 22314, USA
Tel: (703) 292-5111, FIRS: (800) 877-8339 | TDD: (703) 292-5090 or (800) 281-8749

[Text Only](#)